

THE SOUTHERN PLANTER.

Devoted to Agriculture, Horticulture, and the Household Arts.

Agriculture is the nursing mother of the Arts.—
Xenophon.

Tillage and Pasturage are the two breasts of the
State.—*Sully.*

FRANK: G. RUFFIN, EDITOR.

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BY PROFESSOR GILHAM.

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(Continued from page 67, Vol. XIV.)

DRAINING.

At the close of our last number, after having enumerated the various evil effects resulting from the presence of too much moisture in the soil, we stated that there is but one effectual remedy for a wet soil, and that is thorough draining. Not that the removal of excessive moisture will necessarily make every soil productive, but such are the evil effects of too much water, that no wet soil, whether otherwise fertile or the reverse, can be properly improved until after it has been drained.

By draining we do not mean the digging of a few open ditches around the fields or through the lowest portions of them, which would prove exceedingly objectionable in many ways, without accomplishing the object for which they were dug, but we mean the construction of a net work of *covered or blind* drains, as we have sometimes heard them called, which underlie the entire surface to be drained, placed so deep as not to be interfered with by the plough, and so arranged as to carry off *all* water except that which the retentive power of the soil enables it to keep within its pores.

We have already stated that a soil, to be in the best possible condition with respect to moisture, must rest upon a porous subsoil, or be so inclined to the horizon, that any excess of moisture, whether derived from rains, or higher lands, shall pass rapidly from it; when, from the nature of the surface, the position of the strata which underlie the soil, or the retentive nature of the subsoil, there is not a free passage for excessive moisture, the drain is the only means that we can resort to to remedy the defect. Now, since there are comparatively few soils which are in the condition first mentioned, it follows that there are few soils which would not be more or less *improved* by thorough draining. At the same time we may say that draining becomes *absolutely necessary* only when the excess of moisture becomes so great as to prove a bar to profitable cultivation. In proportion as the value of lands increase, from whatever cause, or in proportion as population increases by which the necessity

for increased productiveness becomes greater, so does the necessity for increased attention to the subject of drainage become greater. In Great Britain large areas have been drained, but it does not follow from that that we would be justified at this time in draining to the same extent; on the contrary, we feel assured that an extensive system of draining in Virginia, if undertaken at this time, would be the height of folly. But while we would not at present recommend draining upon an extensive scale, we would recommend every farmer to examine his farm well, to ascertain whether he has not a *few* acres, at least, which are now useless, or nearly so, from being too wet. If he finds any such land, let him ascertain what would be the probable expense of draining it, and then let him compare this expense with what he knows must be the increased productiveness of the land after it is drained. There are but few farmers who will not find some land that needs draining.

After what was said in our last number in relation to the effects of too much moisture in the soil, the benefits of the drain must be apparent to every one; it may not be amiss, however, briefly to call attention to some of them.

Land that has been drained well never retains any stagnant water upon it; neither will the water from washing rains run off over the surface, carrying off the very best portions of the soil; but it will rapidly sink down into the soil, carrying with it whatever fertilizing substances it has taken from the air; and as it sinks, it will be followed by air and warmth. As the water sinks rapidly through the soil to the drains, the latter is much sooner under the beneficial influence of air and warmth than if it had not been drained; and it is also sooner in the proper condition for ploughing or any other needful mechanical operation; while in times of drought it never bakes or becomes hard, as undrained lands frequently do.

Crops upon drained land generally ripen earlier than upon undrained, and they ripen more uniformly, while winter crops are less liable to be frozen out.

Draining, besides ameliorating the condition of the surface soil, produces very beneficial effects upon the subsoil. It is made lighter; is more readily worked, and the roots of plants penetrate it more readily; besides, as the water sinks through it air follows, producing those changes which are always so beneficial, and which fit it for the supply of healthy nourishment to the roots of such plants as penetrate it. But the beneficial effects of the drain upon both soil and subsoil are far greater

when deep and subsoil ploughing are resorted to in connection with it; indeed, we may say that in most cases of thorough draining the subsoil plough should be used as a matter of course, and should be regarded as *necessary to complete* the improvement that it is designed to effect in draining. After what has already been said in relation to deepening the soil, its effects, and the utter fruitlessness of attempting it on a wet soil, it is unnecessary to dwell upon the benefits resulting from the use of the subsoil plough in connection with the drain; we would remark, however, that as there are comparatively few subsoils which have good natural drainage, there are also, comparatively, few soils which are benefited by the use of the subsoil plough until after they have been thoroughly drained.

Soils that have been drained are found to resist drought better than undrained ones; the subsoil having been made lighter the roots of plants penetrate farther in search of necessary moisture, and for the same reason the supply of water which is brought up by capillary attraction to replace that removed by evaporation is greater and lasts longer.

Pasture lands frequently contain portions upon which only the coarser grasses will grow—grasses which are not nutritious, and which stock will not touch until all the finer grasses have been eaten off—these portions suffer from an excess of moisture. One of the first effects of draining upon such lands is the disappearance of the coarse herbage and the substitution of the finer and more nutritious grasses in its stead.

But though little is known yet in relation to the practical benefits of draining in this country, the few who have tried draining and have made known their experience, speak in the highest terms of its effects. In Great Britain large areas have been drained, and with the very best results. Drained lands have their productiveness so much increased that landlords are enabled to raise their annual rents sufficient to yield them an interest of from five to seven per cent. on the outlay for draining, and tenants find it to their advantage to pay the increased rent for drained lands, rather than cultivate undrained ones. Cases have occurred in which the increased yield from the first crop covered the entire expense of draining.

The drain has been found beneficial on almost every variety of soil, from the stiffest clay even to light, sandy soils. Where failures have occurred they have been most frequent in very stiff clays. Some very stiff clay subsoils will not permit the passage of water through them at all, or at most to a very slight degree. Such soils would not drain no matter how close the drains were placed to each other. It has been recommended that before any attempt is made to drain a very stiff soil, a hole or pit be dug in it, and securely covered so that no water may enter from above, and then ascertain whether, in time of rains, water finds its way into the pit from the surrounding soil; if it does, the soil is susceptible of being drained; if not, to attempt to drain it would be to throw away time and money.

Before proceeding to describe the methods in use for draining land, it may not be amiss to indicate, so far as their appearance will justify us, those soils which need draining most. All boggy or marshy soils *must* be drained before they can be cultivated at all. Soils in which there are springs, whether seen at the surface, or hidden, as many of them are, when their presence becomes known only from their producing *weeping* in the soil, require to

be drained; at least those portions which suffer in any measure from the springs. Many spots which otherwise would be very productive are, even when high upon the sides of hills, made almost useless from this very cause. The explanation of the occurrence of springs in such situations may be found in the fact that the strata which underlie the soil prevent the sinking of the water when it falls, but carry it off and deliver it again when the outcrop or break in the strata occur. Any portion of a field on which the water after rain remains for some time, or any part of a meadow or pasture that produces coarse herbage which stock refuse to eat as long as any other can be had, all require to be drained before they can be said to be in a proper condition with respect to moisture. Finally, any soils which continue wet for some time after a long rain, which soils, by the by, are very apt to wash badly, are generally very much benefited by draining; still it cannot be said that draining is in all cases necessary for profitable cultivation.

In draining land it is proper to commence with the largest or *main* drains. These must occupy the lowest line of the field or area to be drained; have a uniform rise or slope; should be some six inches or more deeper than the small or parallel drains; be as straight as the nature of the ground will permit, and be sufficiently large to discharge all the water from the field or area to be drained. As the other drains empty into these, they are sometimes left open, so that the mouths of the small drains may be kept clear; but this practice cannot be recommended, as open drains should always be avoided, if possible. If the small drains are properly secured at their mouths when first constructed, and the mouths of the main drains are provided with gratings to keep out vermin, the covered mains will be found as effective as open ones. The fall of the main drains should be as much as one foot to the hundred, if it can be had; if that fall cannot be had, one foot to two hundred will suffice. After locating the main drains, a drain is made across the upper side of the field or area to be drained. This cuts off the water from springs or any other water that might find its way to the field from the higher ground. Lastly, the small drains are laid out; they are made parallel to each other whenever it is at all practicable; they should run straight down slopes, and should have a uniform fall of not less than one foot to two hundred yards. They are made to connect with the top drain and empty into the main drains. They may be of any length up to two hundred feet; if longer, they are apt to choke. When the distance from the top drain to the main drain is more than two hundred feet, *sub main* drains should be constructed, which should have a free communication with the main drains. The depth of the drains should next be considered. They ought to be deep enough to free the subsoil of its water, to at least the depth to which the roots of plants penetrate, and to be out of the reach of the subsoil plough. When the subject of draining began to attract the attention of agriculturists two and a half feet for the small, or parallel drains, and three feet for main drains, were considered as depths sufficient for all practical purposes; but the experience of the last few years in England and Scotland is such as to warrant us in recommending the small drains to be at least three feet deep; in many cases they might be made four feet deep, or even more, with decided advantage. Laying drains *deep* is now regarded in Great Britain as one of the fixed principles of draining. Such deep drains would, at

first sight, seem to add very much to the expense of draining; it is found, however, that if properly managed there is an actual saving in the expense. The deeper the drain, the farther, in a horizontal direction, will it draw water from the soil; hence, by increasing the depth of our drains they may be placed farther apart, and consequently fewer of them will be necessary; and the diminished expense consequent upon having fewer drains is found to more than counterbalance the extra expense of making them deep. No fixed rule can be given for increasing the distance between the drains for a given increase in depth; it need not, however, be less than from six to eight feet for every foot below them. Neither can any fixed rule be given for the distances between drains for ordinary depths; they may be from fifteen to forty-five feet apart, depending upon the character of the soil. In England for a depth of three feet the drainage is found to be perfect on most soils at distances varying from eighteen to twenty-seven or thirty feet, and no doubt these same distances would be found suitable for our soils.

In constructing the drains the first thing to be done is to dig a trench or ditch of the depth that it is proposed to make the drains, giving the sides more or less slope, depending upon the nature of the soil; it should be from three to ten inches wide upon the bottom, depending upon the material that is to be used in constructing the drains, and the bottom should be left smooth. The usual way of making these trenches is first to cut two deep furrows with a heavy plough and remove the loose earth with a common spade or shovel; after the removal of the loose earth the trench is deepened by the use of a long, narrow and tapering spade, and after this comes another spade still narrower than the first. The bottom is generally smoothed by a scoop of peculiar construction. In digging the trenches a due regard to economy of construction would require that they should be made as narrow as it is possible without impairing their efficiency. After the trenches are all dug, they are to be filled for several inches with broken stone, or earthenware pipes, called *drain tile*, are laid in the bottoms, or some other material is used which will permit the passage of water; then several inches of earth are thrown in and well rammed; and finally, they are filled up with earth, when the drains are complete.

Various means have been resorted to for securing a free passage for water in the bottoms of drains; of these only two have been found to stand the test of time, and furnish drains that may be said to be *permanent*. The first consists in the use of broken stone, the second in the use of drain tile, above spoken of. To these two methods we shall confine our remarks.

When the drains are made of stone the bottoms of the ditches should be about six inches in width; the stones should be broken into small pieces of uniform size, and should form a layer of some nine or ten inches in thickness in the bottom of the trench. Over the broken stones a layer of good sod, with the grass side down, is carefully laid; on this several inches of moist earth or clay is rammed, and the drain is completed by filling up the remainder of the trench with soil. Sometimes a little conduit is formed by putting two small flat stones on their edges in the bottom of the trench, and letting their upper edges come together so as to leave a triangular cavity under them; over these, broken stones are placed, as before. This adds

greatly to the labor, and is very little, if any, more effective than the simple broken stone drain. In soft ground it is sometimes necessary to place a strip of plank in the bottom of the trench before throwing in the broken stone. If care is taken to have the stones broken small and of uniform size, and the first layer of earth is properly rammed, these drains are very effective and permanent. The main drains being much larger are frequently made with large stones regularly laid so as to leave a conduit some ten or twelve inches each way. When stone is plentiful, and has to be hauled but a short distance, stone drains recommend themselves to the attention of the farmer. It is to be observed, however, that the hauling, breaking and spreading of such a quantity of stone is necessarily expensive under the most favorable circumstances, and hence it is that stone drains are, in most cases, more expensive than tile drains, which we shall now describe.

Drain tiles are made by machinery from good clay that has more or less oxide of iron in it; they are burnt in kilns, like brick, and if properly burned they emit a clear ringing sound when struck. If they are not burnt sufficiently, they are light colored, and when used for draining purposes are apt to crumble to pieces after a few years; if they are hard they will last a great many years. They are generally made about fifteen inches long, of various sizes and several forms; the forms in common use are the *horse shoe* and *cylindrical* tile. The horse shoe tile is composed of two pieces, the tile proper, the cross section of which is something like a horse shoe in shape, and a flat piece, or *sole*, which is intended to lie in the bottom of the trench, and upon which the tile is laid with its convex surface up. Sometimes the sole is omitted, and then the tile is placed upon a strip of plank or upon the bottom of the trench; but neither of these practices can be recommended. Cylindrical tiles have either an oval or circular cross section; the circular seems, upon the whole, to be the best form, and is now generally preferred. They are made of every size, from one inch, internal diameter, up to several inches; their ends, as those of horse shoe tiles, are cut off square, so that they may fit close when placed end to end in the drain. Cylindrical tiles possess several advantages over the horse shoe form, and are now generally preferred; they are much less expensive, as only one-half the number of pieces is required—are transported at smaller cost—are stronger and less liable to break, and the labor of laying them is less.

In laying horse shoe tiles the soles are first placed end to end on the bottom of the trench, and on these the tiles are placed. In order to prevent the ends of the tiles from slipping past each other, which would be likely to cause the drains to choke, it is usual in putting down the tiles to make them break joints with the soles. In laying cylindrical tiles they are simply placed end to end in the bottom of the ditch and firmly secured in their places by little wedges of stone, placed at intervals. The bottoms of the drains need be no wider than just sufficient to admit the tiles. In soft ground it is sometimes necessary to lay the tiles down upon strips of plank to keep the ends from slipping past each other. Another way is to have little earthenware collars, large enough to contain the ends of the tiles; but this adds to the expense. Still another method of preventing slipping has lately been introduced. It consists in having the ends of the tiles cut with alternate projections and indentations,

the projections in the end of one just fitting the indentations in the end of the next.

Many suppose that by placing the ends of the tiles together, the openings left will not be sufficient to discharge all the water, or rather allow it all to enter the pipes; experience proves, however, that provided the pipes are large enough to discharge all the water, it will all find its way into them. It is found that for all the smaller drains, except when a marsh or something of the sort is to be drained, tiles of from one inch to an inch and a half bore are sufficiently large to insure perfect drainage. The main drains should, of course, be laid with large tiles, the size being determined by the number of small drains which empty into the mains. Sometimes main drains are made by placing two rows of cylindrical or horse shoe tiles side by side. When large bodies of water are discharged by the main drains regular conduits of stone should be made.

Before filling up the drains it is well to inspect them all to see that none of the tiles have become displaced. In filling them some use a layer of broken stone before putting on any earth, a practice which very greatly increases the expense; while others simply ram a layer of moist earth around and above the pipes, and afterwards fill up with loose earth. The last method is found to be quite as effective in securing good drainage as the other. Bits of sod are sometimes used with the grass side down, to place over and protect the joints from getting choked with earth, but this is an unnecessary precaution, except when the earth is very dry.

As the subject of thorough draining has only recently begun to attract the attention of agriculturists, it is not to be presumed that all of its principles are unalterably fixed, or that the most perfect practice has been attained. In what we have said upon the subject we have endeavored to give what are now regarded as the true principles of draining and to recommend such practices, and only such, as have been proved to be effective in securing good drainage.

For the Southern Planter.

FACTS AND TESTIMONY OF GREATLY INCREASED PRODUCTION FROM THE USE OF MIOCENE MARL ON LANDS NATURALLY POOR.

BY EDMUND RUFFIN.

In the "*Southern Planter*" for May, 1853, was published, as a communication to the State Agricultural Society, a review of the 5th edition of the "Essay on Calcareous Manures," from the pen of the Hon. WILLOUGHBY NEWTON. Such high commendation was therein bestowed on the work reviewed, and on its author, in respect to the more important subjects of discussion, that I have felt very reluctant to object to any of the less favorable opinions. My uttering any such objections may appear to the public as indicating a morbid sensitiveness to censure, and impatience of all opposition and just reproof. This charge will not be entertained by my reviewer, or by any one who knows our private relations of mutual regard and esteem. His expressions of dissent and reprehension

have been received by me as among his highest compliments—as their utterance indicated his confidence in my being able to bear (what he deemed) unpalatable truths without taking offence. It is not my purpose to reply to any of these expressions of disapproval or denial of some parts of my reasoning, or theoretical or speculative views. Without yielding them in the least, I leave their value to be decided upon by our readers. It is for another purpose, much more important to public interests and agricultural improvement, that I now write.

No one appreciates more highly than Mr. Newton the profits of calking, or is more convinced of the indispensable necessity for that mode of improvement for nearly all the lands of lower Virginia. But his own very successful and profitable improvements have been produced by (or based upon) the use of *lime* instead of *marl*; and the applications of the latter manure, within the sphere of his personal observation, would seem to have been less judicious and profitable than elsewhere, and much less effective than all proper applications will be found. Under impressions thus received, he has greatly, though certainly unintentionally, underrated the actual and ordinary benefits and profits of marling, and still more what ought to be the much greater and certain benefits of all judicious applications, made under circumstances not unfavorable to the operation. The high and well deserved reputation which Mr. Newton has attained as one of the best informed agriculturists and most successful improving farmers of Virginia, will give currency and authority to all his deliberately expressed opinions, even in the few cases of their being founded on mistake and error. It is to guard against the latter and unusual tendency of his teaching, (in a minor but important portion of a great general subject,) that I am now induced to appear in defence of some of my former positions, in regard to matters of fact and practice.

The proposition which will be here opposed is presented in the following passage of the review: "The power of calking has prescribed limits, beyond which it cannot go. We believe there has been no instance in Virginia, or elsewhere, nor do we think it possible there can ever be one, of the product of any naturally poor farm being brought up to an average, on entire fields, from year to year, of more than ten bushels of wheat, or twenty bushels of merchantable corn, to the acre, by calking alone, however long continued, though the operation be aided by the use of all the putrescent manures that could be produced on the farm, and by plaster, clover and peas, and the best possible rotation."—(*Southern Planter*, p. 133, Vol. XIII.)

The reviewer applies this general proposition to *miocene* marl, (which contains no notable fertilizing principle other than *carbonate of lime*), and on land naturally poor, or not of good soil. He specially and properly excepts the operation of *eocene* marl, containing "green sand," and important manuring ingredients in gypsum, potash, and perhaps other accessories to the main ingredient, *carbonate of lime*. Admitting all such cases of exception claimed, I still maintain that there can be adduced numerous and well authenticated facts of the above proposition being erroneous. There is no need to seek abroad for such evidence. I will confine myself to adducing facts and testimony that were before in my possession, and obtained for a different purpose.

In 1840, for the purpose of presenting the fullest proof of the manner of action and the beneficial

effects of marl, I published sundry queries, and also directed copies of them specially to many known marling farmers. The usual and culpable remissness, in this respect, which marks the agricultural class, and the general unwillingness to write facts for publication, prevented my obtaining answers in regard to more than twenty-two farms, including the one on which my marling labors were commenced. There could have been no better vouchers for the facts known, than the persons who gave the answers. But there were many other farmers who could have stated larger or older experienced results than most of these witnesses—and there are many more who have made later improvements with the aid of better lights, and who, by more judicious practice, have had a greater measure of success and of profit. Further: my friends and former neighbors of Prince George county, who will be here cited, I am sure will not consider me as doing them injustice, when stating that there is not one truly good farmer among them—though all were industrious, economical, and thriving cultivators and proprietors.

The original queries referred to were so extended, that full answers thereto covered (as had been designed) the whole subject of the effects and benefits of marl, in the personal experience of each answer. The answers, with the queries, were published at length in the "Farmers' Register," (Vol. VII.) and subsequently (in 1843) a digest of them, in tabular form, in my "Report of the Agricultural Survey of South Carolina."

Among the many queries, some required and obtained from each individual, the report of the rate of production of his farm, both in corn and wheat, (the general and almost only crops,) before marling; and, by estimate, the then average productive power of the respective farms in 1840. At that time, no one concerned could have supposed that he would ever be again called upon to report the production at any later period. Each one then answering, (naturally and properly, and with good reason,) proud of the success of his labors of improvement, and sanguine as to the actual benefits already achieved, *must* have stated the supposed and then latest productive power of his farm, full as high as his belief and the truth warranted. To have estimated and stated below this rate, would have been contrary to human nature.

In 1852, when the fifth edition of the "Essay on Calcareous Manures" was in the course of preparation for the press, it occurred to me that abstracts of these former answers, showing so far the increase of production, with the addition of the then latest rate, would present more striking and impressive proofs of the effects of marling than I could offer to the public in my own opinions and experience. For this purpose, letters were again addressed to all of the former answerers whose cases were deemed applicable, inquiring as to the amounts of actual crops of the then last two years, 1850 and 1851. The taking of all the crops of two consecutive years, it was supposed, would offer a fair average of seasons and of productive power, and especially as to farms whose length of rotation embraced three years only. Deaths which had occurred, absence, changes and divisions of property, with other circumstances, prevented my obtaining answers but from seven of the farms on which miocene marl had been used mainly or exclusively. And these answers arrived so slowly that they were too late to be used for the work for which they had been designed. But they will serve to show that the

benefits of marling are much greater than supposed by Mr. Newton, and all the better because these cases were not sought or chosen for their present use.

All the seven farms cited are in one neighborhood, in Prince George county. One of them only, No. 7, (Coggin's Point farm,) is touching the river; and also, that one only has had any marl other than miocene, or had any originally rich land, or very good soil. Not one of them had any good flat land worth consideration; or any "low-grounds" except the narrow and crooked alluvial bottoms, of sandy soil, bordering small and rapid streams. These bottoms, even when rich naturally, are so difficult to keep drained, and to cultivate, and so liable to injury from rain-floods and the barren sand they bring down and deposit, that the narrow bottoms, with their enclosing slopes, or steeper hill-sides, are of less value than the other poorest level up-land of the farm, after the latter has been marled. With the unimportant exceptions named, all the seven farms were naturally poor, and, before marling was begun, greatly exhausted—mostly of sandy soil, and, being all high and hilly, were deprived of much of the surface-soil, and even sub-soil, by the washing of rains, forming barren galls and gullies on numerous slopes. The comparatively richest portions of the first six of these farms, when new, (and of all such land,) were the sandy slopes, (of "free, light land,") which wear out rapidly, and are the slowest and least to be improved by subsequent marling. The highest ridge or table land only offers any extensive level. This was naturally the poorest, (and extremely poor,) but is the best of the land after being marled. The farm No. 7, (formerly mine, and since 1838 under the sole direction of my son,) was, for much the greater part, in natural soil and surface, and in judicious culture, like the others. But out of more than 700 acres of arable (now perhaps 800) there were about 100 only (nearly all high) of very good and originally rich soil. Eocene marl (though containing no "green sand,") had been used for about 60 acres of this farm—all the other land having had ordinary miocene marl only. Gypsum has been used there to some partial extent—and the "gypseous earth," dug on the farm, much more largely and generally. But these exceptions, limited and very partial as to this farm, do not, in the least, apply to either of the other six. Neither guano, nor any other bought manure, (except the little gypsum stated as to No. 7,) had been applied to either, to any appreciable effect, if at all, in all the time included in the table. Therefore, all these farms, (allowing for the partial exceptions as to No. 7,) present cases agreeing with the requisitions of Mr. Newton's proposition, in being naturally poor, and having had no foreign or purchased manure; and for nearly all the aggregate surface, of all except No. 7, they have not been benefited by the aids which his proposition would admit, that is, the use of gypsum, of any rotation better than of three shifts, and of either clover or pea fallow to precede wheat. Added to these deficiencies, the loss of soil, from all, by washing, had been very great, and over much extent of surface; and land so damaged, and even so barren a subsoil, can never be brought to equal value with ground retaining its soil. Yet, under all the unfavorable conditions, the general average products of all these farms, both in corn and wheat, for 1850 and 1851, rise above the maximum limits of improvement asserted; and also the separate average products of each farm except one—and

for which falling short there were sufficient reasons other than want of enough improvement. One other farm, (No. 1,) of which the extent of tillage was not stated, and, therefore, the average per acre could not be calculated, certainly would not have presented a lower than the general average of production of all the others.

FARMS OF	CORN.		WHEAT.		Latest actual production of Corn.				Latest actual production of Wheat.			
	Estimated products of corn per acre in bushels.		Average annual products of farm in bushels.		1850.		1851.		1850.		1851.	
	Before marling.	After marling and in 1840 estimated.	Before marling.	For 1840. estimated productive power.	Crop in bushels.	Average to acre.	Crop in bushels.	Average to acre.	Crop in bushels.	Average to acre.	Crop in bushels.	Average to acre.
	When the marling was begun.	Year.	How much wanted land in 1840.	by 1840.	Year.							General average of 1850 and 1851 of wheat to acre.
No. 1, J. B. Bland, (Fountains.)	10.	1826	400	376	1826	3500	5000		1100		1500	
No. 2, Edward A. Marks, Burleigh,	10.	1827		230	1827	2675	2675	21.92	1320	12.	1393	13.65
No. 3, John H. Marks, Old Town,	25.	1827	450	300	1827	2830	3100	15.50	1400	8.75	1950	9.75
No. 4, Elgin Russell,	20.	1827	192	150	1827	2375	2375	26.16	1200	13.33	900	10.
No. 5, R. M. Harrison, Huntington,*	10.	1827		200	1827	2000 } 22.5 1500 } 20.	2300 } 1700 }	25. 23.33	1200 600	11.50 9.	1150 825	13. 12.7
No. 6, H. W. Harrison, Pinkard's,*	20.	1834	200	125	1834	3500	4000		1800		1975	
No. 7, Edmund Ruffin, Jr., Coggin's Point,	11.	1818	737	670	1818	3150	3750	32.61	4112	12.81	4420	16.81
General averages of all the farms,	10.61	23.83				Total of 7 farms, 18,030.	Total of 6 farms, 20,900.		Total of 7 farms, 10,932.		Total of 7 farms, 12,138.	
	General average of 6 farms,				23.39	General average to acre of 6 farms,				11.88		

* The now two farms, Nos. 5 and 6, were held and cultivated as one until after 1840, and therefore were stated as one only in the report of 1840.

Exact and full comparisons of the former and recent productive powers of all these farms are, unfortunately, prevented. The estimated production of No. 1 was stated by the proprietor differently from all the others, both in 1840 and 1851; and where so differing, they cannot be compared or stated with the others in the summing up of results. All the other six farms were stated alike as to each other for each time, but for 1840 differently from the recent time—supposed average products per acre of corn being stated for the former, and total and actual crops for the latter. This want of uniformity will prevent the showing the aggregate increase of production in corn since 1840. It is, however, certain that this increase was very considerable, after 1840, as well as before that time. The great increase of wheat more clearly appears, and, with other important facts furnished by these figures, will be here brought more distinctly in view and comparison, in the following abstract of the results:

Estimated average production per acre of corn, of land cultivated before marling, on all seven farms, - - - - - 10.61
 Like estimate on same farms in 1840, of all the land then cleared, - - - - - 23.83
 Average production per acre of actual crops of corn, for 1850 and 1851, on six of the farms, (No. 1 omitted, because extent of fields not stated,) - - - 23.39
 Estimated total average wheat crops on the latter six farms, produced before marling, and of two of the farms known by actual average products, - 1358
 Estimate of same, in 1840, - - - - - 3950
 General increase in times varying on the different farms from 22 to only 6 years, since beginning to marl, - - - - - 2992

Which is rather more than 186 per cent. on the previous unimproved product.

General average per acre of wheat, on six farms, (omitting No. 1,) for 1850 and 1851, - - - 11.88

(The culture in three shifts, and wheat following corn on five of the six farms.)

Actual general product of wheat on six farms, omitting No. 1, for 1850, - 9,832

Same for 1851, - - - 10,638

General increase of wheat crop of 1851 over estimate for 1840, (3950 bushels,) 6,688

Which is nearly 170 per cent. increase on the product of 1840.

General increase of wheat crop of 1851, over estimate of total production on six farms before their marling was begun, (1358 bushels—10,638,) - 9,280

Which is rather more than 680 per cent. increase on the early and unimproved product in wheat.

It might be inducing a great error if I were to leave my readers to infer that all this increased production was on the same land, or that the space cultivated on each of these farms was the same from 1840 to 1851. On the contrary, and as is the case of almost every improving farmer in lower Virginia, each of these has more or less enlarged his cultivated space, by new clearings, or bringing again under culture waste and greatly impoverished ground, (including all the galled and gullied spots) previously left out if cultivation and use. In addition, the first named three farms have been more or less increased in surface, by purchases of adjoining poor land. But, in almost every case of such additions, whether by purchase, or by clearing of original forest, or bringing under culture before worn-out lands, these new additions were much poorer than the average quality of the land previously tilled; and of such additions (before being marled) served at first to increase the *gross* or *total* production of the farm, they served—and mostly still serve—in greater proportion to lessen or keep down the average production to the acre, which is the main matter here in question. Thus, while the latest actual crops then known (1850 and 1851) averaged for the latter six of these farms only 23.39 bushels of corn and 11.88 of wheat to the acre, it is certain that some parts of these farms, originally very poor, and improved only by marl and their fair share of farm-made putrescent manures, (and in some cases without any other than their own growth,) are capable of making 30 or more bushels of corn, and 15 or more of wheat after corn, or 25 or more if after clover or pea fallow.

But it may be truly asserted, that all the productions of all ground added to these farms since their marling was begun substantially are as wholly due to marling as the mere increased product of the land kept before under usual tillage. Before this improvement was begun, not only much, but much more, land was annually added by new clearings to every farm; and, also, much better land, until all such was brought under culture. Still the extent of culture did not increase—or but little—because as much, or nearly as much, old land was annually turned out of culture as being exhausted and worthless, as was added by new clearings. Since the marling no land has been turned out, and all new clearings remain as so much net increase to the extent of surface cultivated. Therefore, not only the increase of product, from being subsequently

marled, of all new or added spaces, but their total product, is all due to the improvement by marling.

None of the farms mentioned were selected in 1840, because showing the largest, or even proper increased products from marling; and in 1852, when questions again were put, they were thus directed merely because the same persons had before answered in 1840. Other farmers who began to marl later, and on newer and more level lands, have done much better than the farmers above referred to, because of the unfavorable circumstances above named. As one case out of many of more recent and much greater improvement, I will cite the testimony of David Tatum, a respectable and reliable man, (though formerly a very unsuccessful and profitless farmer,) who, as he stated of himself, was always “going down hill” in his farming, notwithstanding all his efforts to improve, until he began to marl. His locality, in the interior of Prince George county, would alone forbid his access to other than farm-made manures; and he has only used these with leaves from his wood land and latterly marl. In answer to inquiries, this late but very successful marler wrote (in 1852) as follows: “I commenced marling ten or twelve year ago. My average crop of corn at that time was not more than 10 bushels to the acre, and that was the principal crop made on the farm. In 1850 and 1851 my corn crops averaged at least 30 bushels and my wheat crops 20 bushels to the acre.”

Judging from his locality and the former and present conditions of his farming, and from the general usage of his neighborhood, I infer, that before marling Mr. Tatum made little or no wheat—owing to the then poverty of his land; and that now the culture of wheat is not extended (as is that of corn) over the still poorest part of every field, in its turn of tillage.

The high rate of general increased production from marling, stated in the last case, was owing to the absence of the most unfavorable circumstances of all the other farms previously named. Probably, on each one of these, if not all, (and I can vouch for No. 7) there have been obtained on portions of the space under tillage—full as large products as those stated by Mr. Tatum, and without any advantage or aid not allowed by Mr. Newton's requisitions. And if any portion of marled land, coming fully under the conditions required by his proposition, shows a continued or enduring production very much greater than the maximum rates he supposes, then the unsoundness of his view in this respect, as a general proposition, is as clearly made out as if such large products covered entire farms. Whatever has been done on even as much as 20 acres of suitable land, may be done on any greater space, or a whole farm, if of land equally suitable to being improved. The greatest production caused by marling, under all the conditions required by Mr. Newton's proposition, is the true measure of the effects and value of marling; and not the smaller or smallest benefit derived, more usually and on much larger spaces, where the circumstances of the land, or its management, are very unfavorable to the proper operations of the manure.

So far, my remarks have been confined (with the small exceptions stated) to miocene marl on naturally poor lands. Soils naturally rich, (however much exhausted by tillage,) and eocone marl containing much of fertilizing ingredients besides carbonate of lime, were properly excluded from Mr. Newton's proposition. Therefore, the following re-

markable, but not isolated facts of greatly increased products, however valuable as agricultural facts and for instruction under like circumstances, are not presented here as additional evidence on the question of the difference of opinions stated. This case, the farm of Carter Braxton, Esq., was one of those embraced in the former report of 1840, and, therefore, with others, its later productions of 1850 and 1851, were sought and obtained. But as the farm is of originally good soil, (of Pamunkey flat land,) and has been entirely manured with eocene marl, containing important fertilizing ingredients other than the carbonate of lime, the case is not applicable to the foregoing question.

The Newcastle farm, formerly belonging to Mrs. A. G. Ruffin, (now Mrs. Governor McDonald of Georgia,) who first begun the marling in 18—, and since to Carter Braxton, Esq., whose former and recent crops, from his own reports, furnished at my request, will be here stated:

FARM OF CARTER BRAXTON, ESQ.

Years.	Bushels of Wheat.		Bushels of Corn.	
	Crops.	Per acre.	Crops.	Per acre.
1839	412	5		
1840	465	3	3705	18
1841	860	5.5	3325	20
1850	3382	10.5	6305	41
1851	3320	18	5310	35
1852	4400*	15*	7500†	50

REMARKS.

* This crop much lessened by a fresh in April, which overflowed 60 or 70 acres.

† This crop, stated by the proprietor's estimate or cubic measurement, before being shelled for sale. The wheat crop of 1853, not yet sold, is understood to be more than 5000 bushels.

Formerly, (in 1839 to 1841,) about 1500 bushels of oats were made annually, of which crop but little has been sowed in latter years.

For the Southern Planter.

APPLICATION OF GUANO TO CORN.

Mr. Editor,—We find in the March number of the Planter a subscriber seeking information when and how guano should be applied to poor land for corn. You referred him to back numbers, and particularly to a communication of Mr. Wilkinson, as published last spring, but said, in conclusion, that the usual mode practiced among you was to put about a tea-spoonful of guano to the hill of corn, sprinkling it on the hill and covering it with a little dirt, drop the corn on that and cover with a hoe. A very tedious process we think.

The writer of the article seemed to be opposed to the broadcast application. The subject we consider an important one, and particularly at this season of the year when the crop is about to be planted. We, therefore, propose to notice briefly the method as suggested above, the writer's views, and, in conclusion, to give, as we think, a better plan. In the first place, we do not believe that a tea-spoonful of guano will make a good ear of corn on poor land, applied in any way whatever, much less do we believe it will do it when put in the hill, for the very simple reason that the stalk in a short

time is not fed or supported from the roots in the hill, but from those in the row; and besides this it is certainly best for all kinds of manure to be mixed with the soil. We, therefore, disapprove of manuring for corn, either in the hill or drill. The latter mode we tried last year, and had our brightest hopes disappointed. The corn grew off beautifully at first, and bid fair to bring a fine yield, but as soon as the roots left the drill they missed the guano, and, of course, there was a decided surrender in the crop, and that, too, in the very nick of time. But, sir, we consider it a partial way of applying any manure on any land and at any time, and would suggest instead thereof either of two methods. The first is to sow the guano broadcast on the land before you plough it; and the second is to apply it when you run your harrows over the corn the second time; either of which is easier done, and is better for the crop and the land.

PRINCE EDWARD.

For the Southern Planter.

EARLY WHEAT.

Mr. Editor,—I shall offer no apology for troubling you with the following reflections and facts, farther than may be found in a profound sense of the obligation I hold every man to rest under to contribute, as far as in him lay, to the cause of agriculture. For the past five years I have observed that the most forward wheat on my farm, and generally on my neighbors', was always the best, provided, it was put in as well, and the land was equal in strength. I have noticed, also, that the fly invariably committed its depredations upon all wheat on my farm, either in the fall or spring, in some years on the same field both spring and fall; and also, that very early wheat seemed to get over its effects by new lateral branches before the frost, and seemed to stand the winter freezing and heaving better than the later wheat, owing to the stronger roots which the earlier seeding possessed. The past fall I determined to test my impressions more fully. Having fallowed a field in June and July, on the 25th of August I commenced ploughing in on the fallow 3 bushels of guano (168 lbs.) and 14 bushels of wheat to the acre, in a drought. I succeeded in putting in about 25 acres before it rained, on which, though the rain was light, it came up directly and grew finely, while I was engaged with the rest. The fallow was completed by the 15th of September. The grasshoppers were as plentiful as the locusts in Egypt, destroying the wheat *entirely*, around the edges of the field, and grazing as a rabbit all over it, (all which they bite before the wheat opens its leaves is destroyed effectually—that which they graze down after branching, puts up again.) Very early in September I discovered that the fly was causing the wheat to disappear, and later, in October, it seemed to be dying daily. I paid some attention to their habits, &c. and found them by thousands depositing their eggs, saw the larva in all its stages, and was struck with the faithfulness of their history as furnished by the Farmers' Register. Of course I had painful apprehensions as to my *seed wheat and labor*, though, as I had abundant time to resow, I feared no other loss, I determined, however, to go on with my corn land seeding, and watch farther development. During this period there had been no rain farther than the slight one mentioned in the be-

ginning of my seeding. Now, however, we had several fine ones, and, to my astonishment and delight, every bunch of wheat which I thought effectually killed, shot forth new branches abundantly, and grew most rapidly—so rapidly that, fearing the frost, I had to put my cattle, horses and sheep upon it. They soon nipped its pruriency, and were removed, with the exception of the sheep; they remained until the 26th of February. The wheat at present looks remarkably strong, covering the ground with numberless branches. What the ultimate result may be is not for me to say, but I think any one viewing my field would choose the *very early* seeding in preference to the later; indeed, I see nothing to fear at present except a severe late frost; and as the land is wet and stiff, lying in a cold situation on the Potomac, it will not be so liable to that calamity as if on lighter land and in a warmer latitude. I will inform you of the final result, and if at harvest the yield should correspond with present promising prospects, it will produce a new era in wheat raising, and add another trophy to the miraculous power of guano.

Respectfully your friend,

WAT H. TYLER.

Willon, Westmoreland, March 1, 1854.

We shall be glad to hear from our correspondent on the subject of his harvest, or on any other that he may favor us with.—ED. SO. PLANTER.

For the Southern Planter.

SMUT IN WHEAT.

Mr. Editor,—In looking over the columns of the Southern Planter, I read with pleasure the very interesting letter of Mr. Thomas Meaux on the subject of smut; and as he requested that farmers should compare notes on this subject, in order to benefit their brother-farmers, in coming to some effective means to eradicate this prevailing evil, I have concluded to give you the result of my experiments on wheat in the fall of 1852. In September I selected four bushels of wheat, and cleaned it thoroughly for the purpose of making the following experiments:

Lot No. 1. One bushel of wheat sowed without either brining or liming, with one hundred and fifty pounds of Peruvian guano to the acre. The yield, thirteen bushels, had the smut very bad.

Lot No. 2. One bushel, brined and limed, and sowed with one hundred and fifty pounds of Peruvian guano. Yield, fifteen bushels per acre. This lot had some little smut, but nothing like as bad as No. 1, which I think lost two bushels in smut.

Lot No. 3. One bushel brined, but not limed, and sowed with one hundred and fifty pounds of Peruvian guano. Yield, ten bushels. About one-third of this lot was smut.

Lot No. 4. One bushel washed in clear spring water, and then limed, sowed with one hundred and fifty pounds of guano. Yield, eighteen bushels.—This lot did not have the smut at all.

On all these lots the wheat was the same: the growth equally as vigorous on them all.

The result of my experiments is, as will be seen, in favor of the lime. The spring water was only used to wet the grains in order to make the lime adhere to them. I think that if farmers would take more pains in getting out their seed wheat, viz. thresh it out with a slow pressure, clean it well, and spread it over their barn floor thinly, and then sow

lime over the floor, stir it up together and let it remain there until seeding time: then wash in clear spring water, lime it, and sow when the ground is in good order, they will be able to get clear of the smut.

With my best wishes for your success in improving Virginia agriculture,

GEORGE H. NORTHAM.

Woodbine, Westmoreland, Nov. 8, 1853.

For the Southern Planter.

THE MAINE LIQUOR LAW.

Mr. Editor,—I am induced after a personal interview with you yesterday, to say that as you have admitted into your columns a long article on this subject, written by Mr. Jesse Hargrave of Sussex co., Va., in which he most wantonly assails and abuses the advocates of the Temperance reformation—many of whom are among the most respectable citizens of Virginia—and as you now find it necessary to close your columns against any reply—the writer desires to say to Mr. Hargrave, as he has made the attack where we are not allowed to go, and as he boldly says “This subject must be met at its threshold”—he is hereby challenged to select as his medium of discussion any paper published in Virginia, and we do hope as an honorable gentleman he will accept the challenge and give us notice at an early day, and he is hereby promised a full reply to his article in the Planter, and a full and fair discussion of the subject to any reasonable extent: and if we cannot maintain our cause before an enlightened and intelligent community when submitted to their judgment, then we must submit to Mr. Hargrave’s anathemas and all the woes his “good creature” BRANDY can bring upon us. All we ask is to submit it to the PEOPLE and not to be ruled by “five [Brandy] counties.”

W. TIMBERLAKE.

Carter’s Bridge P. O. Albemarle, Dec. 9th, 1853.

REPORT ON SUNNYSIDE FARM.

The following account of Mr. Sayre’s farming is very instructive and well worth attention. He is the only one of those who took an honorary testimonial who complied at the time with the requirements of the Schedule of Premiums. None have done so since. When they do, none, we venture to say, will equal the results of Mr. Sayre, and no county will come up to his in the profits of “truck-ing,” as it is called.

Sunnyside Farm, belonging to, and residence of William Sayre, situated on the south side and at the mouth of the western branch of the Elizabeth river, four miles from Portsmouth by land, and the same distance from Norfolk by water, contains 149 acres—107 arable—42, wood and waste.

The soil varies from light sandy, to moderately stiff. It was formerly very poor, but at this time about one-half of the arable land is very productive, and was made so by repeated and heavy manuring for the last ten years, at an annual expense of about one thousand dollars. The subsoil varies very much, from sand to red and blue clay—and is from nine to eighteen inches below the surface. The red clay is found in the field next to the river, but is not in a regular stratum underlying the

whole field, for in many places the subsoil is sand, then clay, varying from one to the other several times in one or two hundred yards. The rest of the subsoil is blue clay.

Of the arable land there are in regular annual tillage about one hundred acres. The remaining seven acres are attached to the homestead and three small tenements.

The principal manure used is the best stable manure, purchased in Baltimore and delivered here at an expense of \$1 12½ per cart load of twenty bushels. Night soil, guano, charcoal and marsh muck have also been used, but only to a limited extent.

For 1853 the crops were peaches and green vegetables, viz. peas, cucumbers, tomatoes, Irish potatoes, cymbelines, snap beans and asparagus.

Peaches—5000 trees on 46 acres. This orchard is generally ploughed twice a year, and this year 17 acres were sown in extra early garden peas, in rows four feet apart, three rows of peas to each space between the rows of trees.

In addition to these 17 acres were 21 acres in peas, sown in rows seven feet apart, one bushel of seed to the acre. Time of planting from first of January to first of March. Time of gathering from first of May to first of June. Manures used guano and stable manure.

On 16 acres of the land sown in peas were cucumbers also planted—the peas and cucumbers being in alternate rows. The time for planting this crop is generally the first of April, replanting every ten days until the frosts are over. 400 loads of stable manure were put in the drills opened for this crop.

On 4 acres of the land sown in peas were planted cymbelines, and on one acre, snap beans, in alternate rows, as the cucumbers. Time and mode of planting the same as cucumbers.

On 22 acres were tomatoes, in hills six feet by four. The plants were raised in frames and under glasses. The seed were sown in smaller frames about the middle of January—transplanting to larger frames about the 10th of March, and as soon as the frosts are gone, from the larger frames to the field, generally from the 15th of April to the 1st of May. For this crop there were two hundred loads of stable manure used in the hill.

On 7 acres were Irish potatoes planted in rows 3½ feet apart, forty bushels of seed to the lot. This crop was manured in the drill—first six hundred pounds of guano to the acre, in drills six inches deep, which was covered three inches deep with the soil. The pieces of potatoes were placed from six to nine inches apart in the row, and well covered with a compost of hog-pen manure and marsh muck, about thirty loads to the acre; then over this compost was thrown the dirt with the plough.*

All of these crops are worked with the plough, cultivator and hoe, as corn and other crops planted in rows—the only difference being in more frequent cultivation. Regular force employed, eight men, four black and four white. For gathering peas, eighty women and children, day laborers. For peaches, one hundred and thirteen women at fifty cents per day and seventeen men at one dollar per day. For other crops, from five to thirty, at thirty-seven and a half cents per day. These hands all

come from Portsmouth each morning and return in the evening; they bring their meals with them.

Estimate for 1853 of Capital vested in Sunnyside Farm.

Land, 107 acres arable, 42 wood and waste—total,	
149—cost	\$7,600 00
Hot beds and sash,	400 00
Repairs to farm buildings,	200 00
One boat,	600 00
Six hundred boxes,	500 00
Four horses,	500 00
Two cows,	50 00
Carts and wagon,	100 00
Corn sheller, hommony mill and straw cutter,	25 00
Ploughs, harrows, cultivators and harness,	75 00
Hand utensils, hoes, spades and shovels, forks, rakes, &c.	50 00
Twenty-five hogs,	150 00
Four hundred barrels,	50 00
Cucumber and cymbline seed,	100 00

Total capital, \$10,400 00

In the foregoing estimate each article is valued at what it is supposed it would sell for—in some instances not one-half of the original cost.

Expenses of Cultivating, Gathering and Shipping Crops for 1853.

Day labor,	\$922 49
Regular force, hire and support,	1,149 00
800 loads stable manure,	900 00
6199 lbs. guano,	139 48
38 bushels seed peas, (English,)	228 00
40 bushels Irish potatoes,	28 00
1 bushel snap beans,	6 00
1500 barrels,	270 00
1000 yards cotton cloth for barrel covers,	57 50
150 baskets lost during the season,	43 40
105 fruit boxes lost during the season,	84 00
2 kegs of nails,	11 00
Farming utensils lost and worn out,	25 00
Blacksmith's and carpenter's bills,	41 00

Total, \$3,904 87

Amount of Sales for 1853 of Fruits and Vegetables in the Baltimore, Philadelphia, and New York markets.

	Gross sales.	Net, after deducting freight and commissions.
Asparagus, 25 boxes, containing 762 bunches,	\$234 46	\$197 20
Peas, 742 barrels,	2,351 47	1,924 14
Beans and cymbelines, 171 barrels,	298 89	193 80
Potatoes, 88 barrels,	217 88	178 66
Cucumbers, 643 barrels,	2,365 80	1,875 86
Tomatoes, 186 boxes,	863 49	694 59
Peaches, 1006 boxes,	3,997 93	3,203 96
Hay, 6200 lbs.	-	77 50
Amount of sales in New York not yet received,	200 00	150 00
Total,	\$10,529 92	\$8,495 71
Expenses of cultivating, gathering and shipping crops,	-	3,904 87
Net profits,	-	\$4,590 84

* There are four acres in asparagus. The roots are now ten years old, and were planted in drills three feet apart, and at the depth of one foot. This crop is worked with the plough and cultivator.

REMARKS UPON THE CROPS.

Asparagus—an average crop—tied in bunches, six inches in diameter, and shipped in boxes holding three bushels each.

Peas—an average crop—shipped in flour barrels covered with cotton cloth.

Cymbelines and Snap Beans—an average crop—shipped in barrels.

Potatoes—almost an entire failure, not more than one-third of a crop—shipped in barrels.

Cucumbers—not more than half a crop—shipped in barrels.

Tomatoes—not more than one-fourth of a crop—464 boxes have been gathered before from half the same number of plants—shipped in boxes, three bushels each.

The three last named crops were much injured by excessive drought, followed by excessive rains.

Peaches—a large crop, but from continued rains one-half rotted on the trees, and those that were shipped reached the markets in very bad order. Persons who are considered good judges and who saw the crop, estimated the loss to be upwards of four thousand dollars. This orchard has borne a crop every other year for the past six years.

WILLIAM SAYRES.

STATE OF VIRGINIA: *County of Norfolk, ss.*

This day personally appeared before me, a justice of the County and State aforesaid, William Sayre, and made oath that the within statement is true and correct to the best of his knowledge and belief.

Given under my hand this 27th day of October, 1853.

GE. W. GRICE, J. P.

MORGAN HORSES.

Mr. Jewett, the most reliable authority on such matters, thus speaks of the Morgan horse:

"I believe the Morgan blood to be the best that was ever infused into the 'Northern horse.' They are well known, and are esteemed for activity, hardihood, gentleness and docility, throughout the New England States; well adapted for all work; good in every spot, except for racers on the turf. They are lively and spirited, lofty and elegant in their actions, carrying themselves gracefully in the harness. They have size proportioned to height; bone clean, sinewy legs, compactness, short strong backs, powerful lungs, strength and endurance. A mixture of the Morgan blood, though small, may be easily known from any other stock in the country. There is a remarkable similarity prevailing in all this race. They are known by their short clean heads, wide across the face at the eyes; eyes lively and prominent; open and wide in the under jaws, large wind pipe, deep brisket, heavy and round in the body, broad in the back, short limbs in proportion to the size, broad quarters, a lively quick action, indomitable spirit, move true and easy in a good round trot, fast on the walk. Color, dark bay, chestnut, brown, with dark flowing wavy mane and tail; head up, moves without a whip; about fifteen hands high; action powerful and spirited.

"They are highly celebrated for general usefulness, make the best roadsters, and live to a great age. In fact they are the perfect 'Yankee harness horse.'

"The Morgans are very like the noble Arab, with similar eyes, upright ears, high withers, powerful

quarters, hocks well under their weight, vigorous arms and flat legs, short from the knee to the pastern, close jointed, possessing immense power for their size, with great fire and courage. But few of the Morgans, however, evince extraordinary speed."

For the Southern Planter.

STUCCOING HOUSES.

Mr. Editor,—In a southern climate and damp location will stuccoing a twelve inch wall in a brick dwelling be a sufficient protection from dampness? Or is it better, with the stuccoing to have the inside furred and lathed before plastering? Information on the above point is desired for practical purposes by

ALIQUIS.

The above question is answered in the following letter from one of the best builders and most reliable men we know:

Eastern View, Albemarle, April 2, 1854.

FRANK: G. RUFFIN, Esq.

Sir,—On the receipt of your note of the 29th ultimo, with the enclosed letter, I hasten to reply, requesting me to give you my opinion relative to the interrogatories sought for in said letter. This I will do with pleasure, and more cheerfully, from the fact that my long acquaintance, observation and interest, as a builder, has afforded me some practical knowledge in guarding against dampness in brick walls, &c. Therefore, I would advise all buildings below the ground (cellar walls) to be hollow drained by an exterior wall four inches, or half a brick thick, to be run all round the cellar walls, (outside of course,) leaving a hollow space between the exterior and cellar walls four inches wide, commencing from the foundation and to be closed at the surface of the ground with bricks, projecting over against the cellar walls. Then a drain, leading from said hollow space, to carry off any water that may rise in the cellar from long and continued rains, filling the earth with water, notwithstanding this is the case sometimes. But if the water is carried off with a drain as it may rise, the walls of the cellar will remain perfectly dry, using this necessary and important precaution, not to suffer the water that falls on the roof of the building to be dashed or blown against the walls by wind, which is the case if it is not conducted off as it falls on the roof by suitable gutters and downfalls, with basins to catch the water, and then a gutter of wood or stone to take away from the wall, (ten or twelve feet, or more, is best.) Another very important item to be particularly attended to for the dryness, &c. of brick buildings, is, not to suffer the guttering of the roofs, &c. to get out of order, which is frequently the case during summer (from neglect) by birds' nests and leaves deposited by the wind, obstructing the passage of the water, causing the gutters to overflow and saturating the walls with rain. Whenever this happens the evaporation of the moisture is so gradual that it takes a long time for them to dry.

I have long since come to the conclusion that twelve inch walls, one brick and a half thick, is sufficient protection against moisture when the work is executed in a workmanlike manner and good materials used, and the guttering, &c. attended to as recommended. I have been the occu-

pant of brick buildings for upwards of fifty years, and never have been molested or made uncomfortable by damp walls in the upper stories of buildings by the falling of rain blowing against the walls. Yet this may happen in long and heavy rains blowing from the same point; for instance, a northeaster, if the building is not guttered and spouted. I have lived at my present location for about seventeen years, where my buildings are all of brick, without ever discovering any dampness in the walls above the ground, which have been always perfectly dry and comfortable; and somewhat remarkable to say, with a family, including white and black, of from thirty to thirty-five, not one has ever contracted a fever *here* of a protracted kind. But I will come to the point of a stuccoed building, and close by remarking, stucco of *itself* is nearly impervious to water, which much depends on the *workmanship* and the *materials*; for instance, the sand entirely divested of all loam and trash, by washing; the lime *pure* and slaked in what is called a putty state, then mixed properly with the sand, made into a mortar and suffered to stand some time before using, say from five to six weeks. When the work is commenced, the stucco workman to use a plenty of elbow *grease*, by much *rubbing* or *floating* with a hand float, brush and water, which compresses all of the particles of lime and sand closely together, and will make them ultimately become nearly as hard as rock. Consequently, I think you may safely answer "Aliquis," he need not (although the location of his building is a damp one) apprehend any danger from damp walls, particularly as he designs stuccoing them.

Very respectfully, your obedient servant,

W. B. PHILLIPS.

For the Southern Planter.

AGRICULTURAL NOTICE.

The following farmers have offered or consented to act as *Assistant Agricultural Commissioners*:

Col. P. St. Geo. Cocke, of Powhatan, (Pres. Va. S. A. Society.)

Thomas L. Preston, Esq., of Smyth.

B. Johnson Barbour, Esq., of Orange.

John R. Edmunds, Esq., of Halifax.

Richard Irby, Esq., of Nottoway.

These assistants will act, to such extent as they may be enabled by the facilities afforded, and other circumstances, in their respective counties, and as much of the adjacent ground as it may be convenient to embrace. Each one, on his assigned ground for operations, will have equal powers and privileges, and like duties with the chief Commissioner.

One service, and the most important which these Assistants will attempt, will be the making and reporting surveys of the agriculture of their respective counties, upon the general plan, of which the heads were recently published in the Richmond Dispatch, and are herewith annexed. Some other gentlemen have under consideration the undertaking of this

useful service, for other counties. It is very desirable to have capable persons to undertake this and other of the duties of Assistant Commissioners, in other agricultural regions—as the tide-water region, the Valley, and the north-west part of Virginia. Should any public-spirited and suitable persons offer to perform these services, they will be gladly added to the list of Assistant Commissioners.

EDMUND RUFFIN,

Agricultural Commissioner.

VIRGINIA STATE AGRICULTURAL SOCIETY.

[Report of the Agricultural Commissioner to the Executive Committee. Approved and ordered to be printed, March 24th.]

GENERAL PLAN AND ARRANGEMENT, AND SOME OF THE PARTICULAR SUBJECTS, SUGGESTED FOR A REPORT OF AN AGRICULTURAL SURVEY OF A COUNTY, OR ANY OTHER AGRICULTURAL DISTRICT OR SECTION OF VIRGINIA.

I. *General features and character of the country in the following respects:*

1. Situation, extent, and natural physical characters and divisions, illustrated by a map of small size.
2. Surface and face of the country, and diversities of elevation and exposure.
3. Climate, and especially any peculiarities thereof, and the causes.
4. Geological characters of different parts, so far as known.
5. Useful minerals, and especially such as are, or may be, valuable as manures.
6. Water, in reference to uses of navigation, irrigation, propelling machinery, &c.
7. Market towns, and manner of, or facilities for transportation of products.

II. *General description and management of lands.*

1. Classes and kinds of soil, and of subsoil, to be designated (when extensive) on the map.
2. Quantities of arable land, of meadow, (not subjected to ordinary tillage, or rotation of crops,) of wood land, swamp or marsh, and other waste or unproductive lands.
3. Sizes of farms, usual or unusual.
4. The usual crops, of large and of small culture.
5. Rotation of crops.
6. Manner and depth of ploughing, and preparation for and tillage, and general management of crops.
7. Expense of cultivation.
8. Agricultural products proper to be made in the locality, and which are brought from other places, and the extent of such supplies.

III. *General market prices of lands, past and present, and causes of rise or fall in prices. Rates of rent.*

IV. *Drainage and Embankments.*

1. Of tide marshes, and swamps.
2. Of swamp or other low and wet lands, higher than the tide.
3. Drainage of arable, or high and firm lands, for either surface water or springs, and by either open or covered drains.

V. *Implements and Machines for Agricultural operations.*VI. *Fencing and Enclosing.*

1. Kinds and costs of fencing.
2. Advantages and disadvantages of the separate enclosing of each field, or each farm, compared to dispensing with either or both—and instead, confining live stock to enclosed pastures, or herding them, especially in reference to hogs.

VII. *Grass husbandry, grazing, and green or vegetable manuring crops.*

1. Natural Meadows on moist ground.
2. Artificial (or sown) grasses on permanent meadows or pastures.
3. Artificial grasses, peas, or other green or forage crops, alternated with tillage crops on arable land.

4. Mowing and hay.

5. Crops of grass, peas, or weeds, left to manure the land on which they grew.

VIII. *Live Stock.*

1. Teams, or animals for labor.
2. Animals reared and kept for their products, or fattened for sale or home consumption, and their management.
3. Animals purchased from abroad, and general cost thereof.
4. Comparative profits of hogs confined to enclosed pastures, or to sties, and those ranging at large.

IX. *Dairy management and products.*

1. Products consumed or sold.
2. Supplies of butter and cheese from abroad.

X. *Manures.*

1. Cow-yard and stable manure, and other stock supplies. Collection and choice of materials—preparation, application, and effects. Fermented or unfermented manures.
2. Straw, leaves, or other unmixed vegetable matters, unrotted when applied.
3. Peat, marsh or swamp mud, as manure.
4. Fossil shells or marl.
5. Lime.
6. Any supply of carbonate of lime from other sources.
7. Wood ashes—coal ashes.
8. Bone dust, or phosphate of lime in other materials.
9. Gypsum.
10. Guano.

11. Any earths containing fertilizing ingredients, and fit for manures.

12. Any other neutral salts, or materials containing them, useful for manuring.

13. Composts of different manuring materials.

XI. *Orchards and their products, Vineyards, Vegetable Gardens supplying products for sale generally and extensively.*XII. *Wood-land.*

1. General description of the growth of different kinds of lands.
2. Uses and value of timber and other products.
3. Proportion of farms necessary to be kept under wood.
4. Disadvantages and cost of excess of wood-land to agriculture.

XIII. *Old and bad practices, and new or recently introduced processes or improved practices in agriculture.*XIV. *Notices or suggestions of new or neglected resources for agricultural improvement.*XV. *Obstacles to agricultural improvement and profit.*

1. Obstacles opposed by natural and unavoidable circumstances.
2. Obstacles caused by erroneous governmental policy, or by omission of proper legislation.
3. Obstacles caused by individual action or neglect.

XVI. *Unhealthiness of residents, caused by climate and condition of the country and its agriculture.*

1. Local sources of malaria, their extent, operation and degrees of malignity—such as rapid streams sometimes overflowing the bordering land—tide-water marshes, fresh or salt—swamps, whether in their natural state or when under culture—mill-ponds, and the passage of transient and irregular floods of fresh water over salt marshes.

2. Accumulation of putrifying matters, animal and vegetable, in towns, their injurious effects on health, and the means of rendering them innoxious, and useful as materials for manure.

3. Increase or decrease, and greater or less extent and virulence of malarious diseases, in past time and now, and the supposed causes of change.

4. Means of removing or diminishing the causes of such diseases, within the reach of individual proprietors, and such means as cannot be used without governmental interposition, and compulsory direction.

XVII. *Any other subjects not here indi-*

cated, which may be connected with the agriculture or economy of the county or other locality treated of, and of which the discussion would be useful in aid of improvement.

From the American Farmer.

SAVING CLOVER SEED—ECONOMY IN THE USE OF AGRICULTURAL MACHINERY.

As requested at our recent interview, I will briefly give my "mode of harvesting clover seed with the mowing machine, and also the manner of preparing the seed for market." I will also add a few remarks as to the decided economy to farmers, of machine over hand work, in securing our crops.

A large portion of my crop of clover seed the past season was so fallen and lodged, that scarcely half the seed could be saved with the cradle; consequently, we were compelled to resort to the slow and expensive mowing with scythes, or use the machine. The trial with cradles, resulted in breaking out the fingers, and leaving much of the best seed uncut; the scythe was both too slow and too wasteful. Indeed to look over the fallen and tangled mass of vegetation, persons unacquainted with the machine would have supposed it impossible to cut it clean, with any thing short of the scythe.

The machine (one of Hussey's improved) was set to cut rather higher than for mowing, and by a side delivery of my own construction, the seed was delivered at the side and out of the track, in straight loose bunches in the best possible order for curing and taking up afterwards: and with almost the precision of clock work. It was one of the most beautiful and perfect farm operations I ever saw—scarcely leaving a head standing to the acre, and literally leaving nothing for the rake to glean afterwards. It was completely cut and raked, in about one-third the time the same hands could have properly raked it alone. We would occasionally, though not often necessary, throw out of gear, pass on through the cleared track, and only cut across and against the lean; in this way every head raised up four to five inches high, or above the guards, [snakes heads included,] was not only cut, but *saved* on the platform. We could well afford to lose a little time in this way, when the machine was doing the work of full ten to a dozen scythes.

The seed is usually left from five to ten days in this state, in order to make it hull more readily; and a shower or two on it, improves it both for the threshing and hulling operations. At a leisure time in winter, and in cold dry weather, we pass it through the common wheat thresher to separate the heads from the straw.

If in good order for threshing, the spike concaves are removed, and blank ones substituted in their places, which answer a better purpose; avoids cutting up the straw, and rendering the raking much less tedious.

The next operation is the hulling; this is done either by running it two or three times through the same machine (spike concaves replaced) as fast as it can be forced in by a board fitting the opening, and having a short handle in the centre, fifteen or eighteen inches long. It is then fanned, when the unhulled seed, falling near the fan, and being much reduced in bulk, may all soon be hulled by passing four or five times through the machine; or secondly, by an opening to feed in the front of the thresher, about nine or ten inches wide, and another opening at back, at the opposite end of the cylinder, the chaff passing diagonally through: but this plan, without much care, is very apt to cut or break too much seed; neither does it save much time, as the feeding is necessarily slow.

An efficient machine that will hull and fan at the same operation is a great gain; for the hulling alone is a short job compared to the fanning. I used a hulling machine this year for experiment, instead of the thresher, (without fan attachment,) but lost considerable seed; perhaps a bushel or more from cutting the seed. It is a tedious, and very annoying operation from dust, to hull with the thresher and fan afterwards; but all the portable clover machines with fan, that I have seen, cost from \$75 to \$100,—too expensive for general use, and often cutting the seed. I am satisfied, however, after some years experience with the crop, that an efficient and durable machine with fan, may be made for about half the money.

My crop of seed this season on seventeen acres, yielded forty-three bushels cleaned and ready for market: besides sowing a large cart load of partially hulled chaff, not considered at the time worth hulling over, but proved afterwards by hulling a similar lot, to contain from three pecks to a bushel of seed; without close attention, considerable loss may occur in throwing out the chaff, or sowing the seed too thick, in the chaff. The crop at the present market value, is worth near \$300; and did not cost me, all expenses included, over \$15 to \$20; two-thirds to three-fourths of this, is chargeable to the in-door work.

The average yield on so many acres is rather unusual; the more so, as over half the ground had produced two crops of grass, and on several acres of this the clover seed was quite light. I attribute it to two causes; first, to the liberal use of lime; for without it, the yield would

not have been a peck of seed to the acre; at least the land never produced any to my knowledge, previous to my liming; nor in fact half a crop of any thing else for me, except briars, broom sedge and sassafras bushes. And what is quite as much to the purpose, this single crop of seed amply repays me for all the lime, bones, and other manures used in renovating the land. To judge by the general appearance of the crop, probably two-thirds of the seed, or some three to four bushels to the acre, was grown on about eight, of the seventeen acres; it being the first crop of seed, and having one hundred and fifty bushels of lime to the acre, in two applications; and on this portion of the land, doubling the lime has certainly more than doubled the product in grass and seed;—in fact, of all the crops. And secondly, to the use of this most valuable implement, the mowing machine.

In this crop of seed, and the grass crop, just preceding it, the *saving* was not less than \$50—I think more, and that it is susceptible of easy demonstration. To have secured the seed crop with the scythe, would have cost me one dollar an acre, besides the cost of hand raking; added to this, is the loss in seed from shattering off, and certainly not less than one peck to the acre, or four and a quarter bushels; equal to \$50 in wages and loss of seed, before leaving the field. Now with the machine, two hands cut the whole in a day and a half, saving the raking entirely, and consequent loss; doing the work in from one-eighth to one-tenth part of the time, and doing it much more perfectly, and with materially less loss in seed, than was possible with the cradle or scythe, and rake.

If "Poor Richard" said truly in his Almanac, that "a penny saved is two pence clear," my case is nearly made out: but permit me to recur again to the grass crop on the same ground, and including two or three acres more than was cut for seed. This was much heavier by reason of the timothy, and even worse lodged than the seed crop; generally estimated by those who saw it, to yield two and a half tons to the acre, or some forty-five to fifty tons. The whole was cut in about one and three-quarter days—it was cut by horses, raked by horses, and unloaded in the barn by horses, without oppression to man or beast, and *without costing me a single dime for harvest wages*; in fact, during the whole of the hay harvest, we were short by one hand of what we often have hired at other times. Nor is this all; but for my machinery, probably half the crop would have been spoiled, or greatly lessened in value; as owing to the dry weather the crops of grain and grass generally ripened at

the same time, and the supply of hands was not half equal to the demand. Besides securing our own crops in fine order and in due season, we had leisure to help out a neighbor or two; one of whom remarked, that if I could not cut his grass, or some eight or ten acres of it, he must leave it uncut, as he could not procure hands.

I am therefore satisfied that in the grass and clover seed crops alone, the past season, the machine has saved me fully half its cost; to say nothing of any gain by its use in the grain crops, or the feeling of independence, and the satisfaction of having the work done at the proper time.

The two past seasons, we have cut over one hundred and thirty acres of grass; two crops of wheat, and two of oats; quite sufficient I think to test fairly the merits, and to prove the economy of the mowing machine over the scythe, either on small or large farms. The machine has been carefully used, and has not cost twenty-five cents in repairs, for all this work. It has *not* been, as I have repeatedly seen Hussey's reaper, forced over stone heaps, pitched into gullies with the knives cutting through banks of earth, and all brought up standing by driving against rocks and stumps; and to my amazement, when I expected a complete wreck, the machines were backed off with as little ceremony as an ox cart, the horses whipped into a trot, and the work resumed, as perfectly as if no impediment had occurred.

The great difficulty with many who are disposed to use machines, is as to the best selection, when so many new inventions and alleged improvements are being made. Without intending to detract from the merits of any, I will remark, that I visited the Crystal Palace at New York, last fall, mainly with the view to examine the many reaping and mowing machines on exhibition. The result of my observation was, for strength, durability, and efficiency as a combined machine, I saw none that was preferred to my own, improved as it now is. The reaper, however, is not considered complete, until hand raking is superseded by machinery, and delivering at the back or side at pleasure, and without the reel; which is strongly objected to as cumbersome, very liable to get out of order, and shattering much grain when fully ripe. Whoever can effect this at the least cost, and most durability, will be well paid for his ingenuity and skill; as it will probably be the means of introducing ten machines where one is now in use.

With a scarcity of hands in harvest, it is at times very desirable to deliver the grain at the side; we now do it very satisfactorily with one

hand, in clover seed, oats, and light grain; but in heavy wheat, it should be done by machinery if practicable, and the more powerful muscles of the horse. I am fully aware of the difficulties attending it; but after seeing what has been done so successfully already in the cutting, I do not quite despair of the raking, although so many have attempted it, and failed. To succeed, the machinery must *not* be complicated, expensive, or liable to get out of order; nor must it materially affect or retard the free motion of the driving wheel and knives; to do either, will cause the latter to clog or choke, and occasion much detention, if not breakages. It must also be accommodated or adapted in some degree at least, to the constantly changing position of the grain, ground, wind, &c.

In the opinion of many, Atkins' automaton self-raker has solved the problem of its practicability, under favorable auspices. As to the question, "Have you seen it at work, and will it meet or supply the wants of the farmer?" I would answer, that I have only seen the machines on exhibition, and not in the field, where alone it can be judged of properly. It is an admirable piece of mechanism; but I fear too expensive an addition to the reaper, and probably too complicated, to come into very general or common use, with a class not proverbial for mechanical tact and skill; or for "having a place for every thing, and every thing in its place." I have often seen expensive implements,—and even the reaper, left in the field, "reposing on its laurels," exposed to all weathers, and from season to season. If the machine fails in its allotted duty at a busy season, as fail it must with such, and even rougher usage, is it fair or just to lay the blame on the manufacturer? It certainly is not, but is oftentimes done notwithstanding. A practical experience of some twenty-five years, as a machinist, has made me as familiar with machinery, as with farming; and I honestly express the opinion, that the sins of *omission*, by implement makers, are far less, than those of *commission*, by the ignorant and thoughtless who commonly use them.

No subject connected with agricultural improvement, has claimed so much of my attention and interest for several years past, as perfecting the reaping and mowing machine; and substituting machinery for hand labor on the farm, wherever practicable. That I have succeeded to some extent,—at least in *saving money*, I am perfectly satisfied. In reference to the machine raking, I may remark incidentally, that a working model has recently been submitted to me, and delivering at the side,

that promises, *with the reel*, and under favoring circumstances, better than any thing I have yet seen; it can be made for \$15 to \$20 only, and perhaps as durable as other parts of the reaper. It requires however, to perfect it, in my opinion, to throw the rake forward, over, and into the uncut grain, like the hand rake, thus dispensing with the reel. The inventor thinks he can do this also; but it can only be proved in the field, not the workshop; by an operating and efficient machine, not a model.

There is however one thing that must be borne in mind by those who would use mowing machines to the best advantage: it is absolutely necessary to farm neatly,—to clear the ground from stone, stumps, and abrupt inequalities on the surface. For a *farmer* to expect to mow close and clean, without the trouble of picking up the stone, and with the knives cutting through earth and gravel, is about as reasonable, and as *profitable* too, as for a mechanic to undertake to plane up his boards covered with grit, or driven through with nails.

I am, respectfully,

EDWARD STABLER.

Harewood, 2d month 15, '54.

OSAGE ORANGE HEDGES.

The following discussion, at a late Agricultural Convention in Ohio, will show how doctors differ:

"Major Milikin, of Butler county, offered for adoption the following resolution:

"*Resolved*, That the State Board of Agriculture be recommended to offer premiums for the best specimens of, and the best mode of cultivating, Osage orange hedges.

"Mr. Gamble advocated the passage of the resolution, detailing in a clear manner his experience in hedging, in a speech to which the audience listened with much interest.

"Mr. Medary said he had given this subject considerable attention. He had reluctantly, almost come to the conclusion that hedging was a species of enclosure, which was of doubtful economy.

"Mr. Springer, on leave, addressed the Convention five minutes, giving his opinion that Osage orange is an unprofitable and unsatisfactory mode of hedging, from his own careful experience.

"Mr. McGrew replied, from his own experience, dissenting from the opinions of Mr. Springer, giving his mode of cultivating the Osage orange, which had resulted to his satisfaction. It was his opinion that with proper attention, there is no soil in Ohio, upon which it cannot be satisfactorily cultivated. He plants in single rows.

"Mr. Anderson stated that after four years' attention to this subject, he considered the Osage orange hedge a humbug.

"Gen. Worthington said that he had had more than thirty years' experience in this matter, and he agreed with Mr. Anderson, that hedging *was* a humbug, because it would not pay. His observation had begun with the white thorn hedge, which he deemed superior to any other kind. He was

satisfied that this species of enclosure would not reward the elaborate cultivation which was necessary in order to bring it to perfection, while our other ordinary modes of fencing could be followed with such cheapness, when compared with the trouble and expense of hedging.

"Mr. Greene deemed the southwest of the State a little slandered. He had studied and practised on this subject twelve years, and was perfectly satisfied that it was one worthy the attention and efforts of agriculturists. We conceive, in Hamilton county, that it is far from being a humbug."



THE SOUTHERN PLANTER.

RICHMOND, APRIL, 1854.

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To any part of the United States one cent and a half per quarter, or six cents per annum.

It is indispensably necessary that subscribers ordering a change, should say *from* what, *to* what post office they wish the alteration made. It will save time to us and lose none to them.

NOTICE.

If subscribers do not order a discontinuance of the Planter before the commencement of a new year, or volume, it will be considered as a renewal of their subscriptions, and they will be charged accordingly.

NECESSITY OF GOOD STOCK TO VIRGINIA FARMERS, AND HOW THEY MAY GET IT.

In the February number of the Planter we wrote a short editorial on the above subject, and promised to continue it in March; but we were disappointed in getting some facts, very material as confirming by experience one or two positions we wished to enforce, which had been promised us by two gentlemen, who have failed to comply up to this time when we are compelled to resume the subject. It is not necessary to recapitulate any part of it, but we may be allowed to refer to the very able prize essay of Commodore Jones as demonstrating by facts coming within his own knowledge the views we expressed in regard to the use of guano. (See page 46 of the February number of the Planter.)

We need not cite statistics to prove that the lands of Tide Water and Piedmont Virginia, with every advantage of climate and contiguity to market, with less natural waste land, and with a soil better, on an average, than that of the Valley, do not come within fifty per cent. of their value, and are worth only about thirty-three per cent. more than the still more remote and, in many cases, inaccessible lands of Trans-Alleghany, with their sparse population and vast unsettled districts; nor need we invoke the same kind of authority to show that in the general department of stock, whether we regard numbers or quality, we are decidedly behind both those regions. True, a new era has dawned on the country we speak of, but it is as yet very far from the perfect day we would wish to see. The present improvements are mainly referable to ploughing, draining and liming—three things indispensable, but not all-sufficient to fertility—and to guano, which we believe will not prove a permanent improver. More pains are taken now than formerly in collecting manures, but the means of making them are, for the most part, such as have always existed, and there is no immediate prospect of increasing the source of supply.

Nor, whilst we admit the necessity of making wheat, need we state the figures to show that even if we could grow it perpetually in such quantities and with the same facility as when lands are in the first stages of improvement by lime, clover and plaster, or by guano, that it is not the most profitable staple, and that it should not enter so largely into the rotation of the cismontane farmer. Suffice it to say, that the Black Sea, the Mediterranean, and other parts of continental Europe, furnish more than two-thirds of the European demand, in ordinary years, and have a continued capacity to rival the whole United States in these markets.

If this be so, then it follows that our true policy is to make more wheat on the same breadth of land, and at the same time to vary our staples, particularly by the introduction of some sort of

live stock. That it may be seen that we are not speaking at random in this matter we refer to an instance, but an instance only, of English farming, adduced in the very sensible address of Mr. C. P. Holcombe before the Maryland Agricultural Society last fall. He mentions a farm of twelve hundred acres of very superior land, which employs 44 hands in summer and 34 in winter, 30 and 20 in the respective seasons being women—in each case exclusive of harvesters—and on which 24 horses are constantly worked. For this land the tenant pays a rent of \$15,000 and other expenses which bring his annual outlay up to \$25,000. Of the whole 1200 acres, seven hundred, including 250 in turnips, the equivalent of our corn crop, are devoted to grazing and feeding, and only a little over one hundred of the residue goes in wheat. But this produces forty-six or seven of our bushels per acre, which, for say 125 acres, is 5875 bushels, full as much as would be made on a plantation of similar size and soil here, where twice or thrice as much is put in wheat, but still insufficient to pay the rent and expenses, even at two dollars a bushel, by nearly ten thousand dollars.

"Now to keep this farm," Mr. Holcombe remarks, "in the condition its intelligent and successful proprietor desires, if he were to make grain its principal product and sell that off from the farm, the annual outlay for manure would have to be very great, and the fifteen thousand dollars annual rent probably would not be made—their idea seems to be, that the profits of breeding and grazing, whatever they may be, are clear profits, while in selling grain, they are selling labor and manure, or a portion of the valuable constituents of the soil, all of which have to be brought back in the market again." Accordingly, as he says in another place, he keeps and feeds from six to seven hundred sheep, and turns off about two hundred and fifty head of cattle in the course of the year, that is one sheep for each acre of the seven hundred, and one bullock for every two acres and four-fifths of the same, which, rating one bullock for six sheep, is 2200 sheep, or nearly two for each acre of the farm.

We do not, of course, expect that the whole of the region we speak of, containing nearly three millions of acres of improved or cleared land, shall go at once up to the number here indicated, or that the whole of it is so fertile as to possess the same acuable capacity, but we do contend that in the progress of time a proportionate number of stock can be reared therein, that there will then be ample room for their resulting products in the markets of the world, and that the agricultural condition of the district will be elevated in the precise rate of this increase. There is no danger now of a surplus of cattle, though every subscriber to the Planter should go at once into the business. And as to wool, it

is well known to those who have looked at all into the subject, that this is, perhaps, the only purely agricultural staple the supply of which is below the demand. The deficiency of Great Britain alone for the last year was estimated at 87,500,000 pounds, and in this country the year before last we exported of fine wool 538,000 pounds, and imported of all sorts 5,400,000 pounds, showing a domestic deficit of 4,862,000 pounds.

As a consequence of this state of things and in proof of it, we may refer to all the cheaper woollen fabrics, the quality of which has greatly deteriorated, many of them being now made of rotten woollen rags, which have been carded and worked up a second, and possibly a third time, and all being considerably adulterated with cotton. These are believed to be, for the most part, the materials of the cheap ready made clothing, which is well known to be generally worthless and unable to hold either thread or dye.

There is no question that this deficit, which is chiefly in the grades of fine wool can be more cheaply supplied by Virginia and the South and South-West than any where else. South America raises nothing but very coarse inferior wools which cannot be laid down here at less than thirty cents a pound, and she is now at a stand in the production of wool. Spain and Portugal have long been decreasing in their supply. So have Germany and Prussia for twenty years—France, from her peculiar land laws, cannot continue her present rate of production—Australia, which from peculiarity of climate and the nature of the climate and population, was never formidable to determined competition, has now exchanged wool for gold, and the Cape of Good Hope, containing only a narrow strip of sheep country, can never, from particular circumstances, become a serious rival.

What is thought of wool growing in the United States where it has been most extensively followed may be learned from the case of Vermont, which, with an area nearly seven times less than Virginia, has almost as many sheep and much more wool than the latter. But their climate is against the business and has diminished it by nearly a million of sheep since the census of 1840, in the face of good prices. It is estimated that it costs there from \$1 34 to \$1 90 to keep the sheep, and her yield of wool is only 3½ lbs. per head; so that at anything less than sixty cents a pounds she loses money. So, in a measure, of New York, whose climate is only a little less rigid, and whose dearer lands makes the keeping of sheep almost as expensive as in Vermont.

Here the cost will be a very light matter, Mr. Crenshaw on his farm in Orange winter before last kept 450 Merino sheep on 230 acres of land without any feed except what they could pick up on a bare

pasture, and sold the wool alone for one thousand dollars. The last winter, considered by shepherds one of the worst ever known for sheep, the same gentleman wintered 600 sheep on less than 230 acres of land, and did not commence feeding until after the first of January, since which time the flock has only eat about fifty bushels of corn and not a particle of fodder and hay. The increase of the flock in wool and lambs will be given hereafter. Of this flock only two have died by disease, two have been smothered by the flock being crowded too much when caught for examination, separation, tagging, &c., and seven have been killed by dogs. Mr. Dox, in the county of Nelson, on 500 acres of land, with about 150 acres in woods and the balance so utterly worn out as not to be worth cultivating, started, two years ago, with a flock of 530 sheep, a cross of Saxon and Merino. Up to August last he had sold the wool and increase of the flock for \$3600, which, putting the annual expenses at \$600, a very high estimate, gives \$1200 per annum, and had left 570 sheep, and a better flock than the one he began with.

We had ourselves purchased a part of Mr. Dox's flock prior to the sale of Shadwell, and have had them only since January. They have had nothing but a few oats, given in the sheaf upon the ground, and we suppose that they have not eaten five dollars' worth. At present the whole flock of 275 is *fat* upon 150 acres of land, and a field of 80 acres, upon which the ewes are now lambing, is sufficient to support twice their number with the greatest ease. We have lost one sheep by disease, one by dogs and two by their being smothered under the rest of the flock, as Mr. Crenshaw's were.

The experience of other persons who have done as well might be cited, particularly of Mr. Davidson, lately removed with his sheep to Powhatan, and Mr. Cunningham of Amelia; but it would be tedious to refer to more cases than are cited.

In all except the *joint-worm* districts sheep may be permitted to run upon wheat through the winter up to the first of March without injury to the crop—sometimes with decided benefit—and even in bad weather, except in wet soils, it is not necessary that they should be taken off, though it would be better for the sheep that it should be done. The experience of Mr. Old of Powhatan, as publicly stated by him before the Virginia State Agricultural Society, abundantly proves this point; and it would be useless with those who know him to attempt to add anything to the weight of his authority. If it were, we would venture to give our own experience, now of several years' standing, and that of Col. Townes of Mecklenburg, who has assured us that he deems himself well paid for having followed the advice of a friend in this matter.

But if it is thought better to feed them on grain

in the winter, then two gills of oats per day, which is enough, will amount to one bushel for 175 sheep, or 150 bushels—the product of about eight acres of ordinary land—for the winter and two months of the spring.

If it is desired to give them green food at an earlier period than the first of May, and there be no standing pasture in which they may run, rye may be sowed for them, part to be grazed off and part to be cut and fed green; and nothing will pay better than to plough up the whole or a portion of the next year's corn field and so treat it.

The summer pasturage of sheep is a light matter except when the flock is larger than any one is likely to have for some time to come. A standing pasture of the ordinary blue grass of the country, (which is considered a pest, and is not, but a blessing rather, if rightly used, and a very good sign that other grasses will grow in its place,) a few lots of orchard or timothy or herds grass, and the clover, of the second year's growth, will take them until after harvest, when they will glean the wheat fields, which they will do as well as hogs. From that time until winter again they will fatten on the fall and summer grasses, on the peas which should be sowed for them among the corn, and on such grass as springs up in the corn field after the last working.

The above remarks as to sheep have reference rather to the Merino and Saxony breeds—the last being a branch of the first—a member of the same family—than to the heavier, or, as they are generally termed, the mutton breeds of sheep. We do not doubt that there is profit in all, but we believe that the profit on the fine woolled breeds exceeds that on any of the others. They are healthier, hardier, and thriftier; they are longer lived; they bear crowding on the land better; they will live on scantier herbage than any of the other breeds, and if one shall die or be killed, the loss is less in consequence of the greater value of the wool and the smaller size of the carcass. As to mutton we believe that more can be raised on the same quantity of land with this than with any other breed of sheep, and that the mutton is nearly as good as the South Down, and better than the fat sheep of the Leicester and Cotswold breeds, the flesh of which is now rarely eaten in England, except by the working classes, whose labors give both inclination to eat and strength to digest it.

But if any of the mutton breeds are preferred, as by those living in the immediate neighborhood of cities they should be, then we advise them, by all means, to select the South Downs and none others.

We shall resume and probably conclude the subject in the next number of the Planter. But for incessant and harassing engagements we should have finished it in the present number.

THE COMMISSIONER OF THE VIRGINIA STATE
AGRICULTURAL SOCIETY.

We deem the following proceedings of the Virginia State Agricultural Society of sufficient importance to be published in the Planter, though they have already appeared in a good many newspapers of this city and other places.

As they are sufficiently explanatory of themselves of their own intent, and along with the Commissioner's address, which we also publish in connection with them, leave nothing to be said of their purport, we can only say of their object that it is most proper and praiseworthy. The collection of agricultural information in Virginia has been heretofore too much neglected, and yet no subject in the State is of so much importance.

Of the Commissioner, who, as we said once before, is not so near of kin to us as that we need hesitate to praise him, (in fact, we are not son and father, but distantly related,) we know no other man who would have undertaken the duty at any price, much less the pittance that he is to receive. After the field has been pretty well reaped by the operations of the Society last year, and by the proceedings at the fall meeting, Mr. Edmund Ruffin undertakes to glean it, for a sum so small, and that larger than he had himself limited, that he cannot expect to make one cent, and will only be saved from loss by the Executive Committee's insisting that it would at least pay his expenses.

Of his fitness for the office we need only say that whilst he is not exactly the man we would have, and undoubtedly lacks certain qualifications, yet, on the whole, we cannot get as good a man to accept the office, if we can find a better at all.

Of one thing we may all feel assured, that he will be behind no man in fidelity to the trust he has undertaken in zeal, industry, activity and disinterestedness.

PROCEEDINGS OF THE EXECUTIVE COMMITTEE.

Thursday Evening, 6½ o'clock.

The committee met at the Exchange Hotel upon the call of Mr. Ed. Ruffin, Vice President, acting as President in the absence of Mr. Cocke from the State. Present—Messrs. Ed. Ruffin, Harvie and Preston, Vice Presidents, and Messrs. Peyton, Barbour, Williams, Crenshaw and F. G. Ruffin.

The Secretary made a report of what he had done since the last meeting.

Mr. Harvie, from the committee appointed to confer with the Building Committee of the Common Council on the subject of a suite of rooms to be furnished, and also from the committee to confer with the Common Council about the holding of the next Annual Fair, reported that negotiations in regard to both

subjects were in progress, but not completed, and asked for further time in regard to each, which was granted.

Mr. E. Ruffin (Mr. Harvie in the Chair,) submitted the following resolutions:

Whereas the 8th article of the Constitution of the Virginia Agricultural Society requires the appointment of an Agricultural Commissioner, when the means of the Society "shall justify the outlay," and which requirement has as yet remained suspended and inoperative; and whereas, in the opinion of the Executive Committee, the present condition and funds, and also the interests and wants of the Society now demand the commencement and limited trial of this designed policy and action in aid of the working of the Society:

Resolved, That an Agricultural Commissioner be now chosen by the Executive Committee, for service of eight months only, from the 1st day of March, whose duties shall embrace the following general subjects, and whatever else may be necessary or incidental thereto, and the performance of so much of such service as the time and ability of the Commissioner, and the means and facilities afforded to him may allow, viz:

To visit such counties, agricultural districts, or particular localities, as may be deemed by the Commissioner most suitable to aid and to be aided by his services for the Society; to gather (either directly or by and through any farmers or others aiding his inquiries,) useful agricultural information; to encourage and induce the establishment of County Agricultural Societies, auxiliary to the State Society, and formed and working upon a proper and uniform general plan; to hold conversational discussions with such Societies or with other meetings of farmers, and to address such meetings in furtherance of his duties on any subjects designed to promote agricultural instruction or improvement; to endeavor to obtain agricultural reports of particular counties, or to collect facts and materials for future reports; to solicit and obtain new members and donations for the State Society; and to report to the Society, through the Executive Committee, in general, whatever he may have done, and especially and particularly the useful agricultural facts and instruction, not generally understood or practised, which he may have collected, or received from other persons.

Resolved, That the compensation of the Commissioner, for the time of service stated, shall be the reimbursement of his daily traveling and other expenses, actually and necessarily incurred; and further, fifteen per cent. upon all new donations and subscriptions for

new membership, paid to and accounted for by him: Provided, that no previous donation, subscription, or other debt or engagement to the State Society, shall be included in the Commissioner's operations; as subject to any deduction of per centage or other payment to him, for such collections: And provided, also, that in case the whole receipts shall fail to reimburse the said Commissioner, or either of his assistants, for actual travelling and other incidental expenses, then the same, or as much thereof as may be necessary, shall be paid out of the funds of the Society.

Resolved, That the Commissioner, at his discretion, may cause to be printed, for facilitating and aiding his operations, any circulars or other papers, the payment for which shall be placed on the same footing and under the same restrictions as herein provided for the Commissioner's necessary and actual travelling expenses.

Resolved, That the Commissioner, if deeming the measure expedient, may appoint any number of Assistant Commissioners, to act in different designated parts of the State—which assistants, for their respective services and spheres of action, shall each have the same duties, powers, and rate and manner of compensation, with the restrictions thereupon, as the principal Commissioner; and shall report their proceedings, as required above of the principal Commissioner, but through him and in such form as he may require from the Executive Committee; and the Commissioner may instruct and direct, as he may deem proper, the labors and particular action of his assistants, within the limits of the foregoing general authority, and may alter the same, or divide or revoke the power so given, when he shall deem the further exercise not required for the benefit of the Society, and the best promotion of the general objects in view.

Resolved, That at the conclusion of the aforesaid limited time of trial, the appointment of the Agricultural Commissioner shall end, and also all the authority given above, unless it shall be otherwise expressly determined by the Executive Committee.

The foregoing resolutions were, at a future state of the proceedings, adopted, as were the following resolutions relative to a part of the duties of the Commissioner, directed to be appointed, which were also offered by Mr. Ruffin:

Resolved, That it is recommended by the Executive Committee, to the farmers of Virginia, to establish County Agricultural Societies, or Farmers' Clubs, to co-operate with and be auxiliary to the State Agricultural Society, in the great work of encouraging and aiding agricultural improvement throughout Virginia.

Resolved, That for necessary concurrence and uniformity of action, it is recommended to and required of such County Societies or Clubs as desire to be auxiliary to the State Society, that each shall adopt and include in its standing rules, the following, viz:

"Besides any other discretionary or voluntary services, it shall be the especial duty of each member of the Society (or Club) annually to commence and attempt to complete, at least two experiments on some one or more subjects of practical agriculture on some doubtful or disputed questions, and designed to throw light thereon; which experiments shall be conducted carefully and accurately, to the best of the ability and the means of the experimenter, and the circumstances noted minutely and with the results, be reported in writing as simply and concisely as may be, but minutely and fully, at the next annual meeting, and whether the results be deemed successful and profitable or disencouraging, or the whole experiment be deemed a failure; and in default of such reports, either of progress or completion of the experiments by each member at each annual meeting, the defaulter shall pay to the treasurer \$_____ for each experiment wanting.

"Of the annual income of the Society, not less than one-half of the whole amount shall be appropriated as premiums offered for well conducted experiments on subjects of practical agriculture."

Resolved, That every auxiliary County Society or Club, is requested to transmit to the Secretary of the Executive Committee of the State Agricultural Society, all their completed and approved written communications conveying useful, practical instruction in agriculture, and which has not been previously published; which communications shall be received and disposed of in the same manner, as if made directly to the State Society; and if any such report of experiments or other communications shall have previously obtained a premium from the Society for which it was prepared, it will not be the less entitled to compete for and receive a premium offered by the State Society, if otherwise properly claiming and deserving such honor and distinction.

Resolved, That every such auxiliary County Society or Farmers' Club may, and is requested to send one delegate to the general annual meeting of the State Agricultural Society; and each delegate of auxiliary societies shall have all the rights and privileges in such general meeting of other and regular members of the State Society.

Mr. E. Ruffin was on the next day unanimously elected the Commissioner.

TO THE AGRICULTURAL PUBLIC.

The Executive Committee of the Virginia State Agricultural Society has appointed me to the charge, and entrusted to my trial, the honorable and important service of Agricultural Commissioner; and, for a limited time, I have consented to attempt the performance of the duties. The kind and character of the various duties with which the Commissioner is entrusted, are set forth generally in the resolutions recently adopted by the Executive Committee, and which has been published in the Richmond Dispatch, and perhaps may be in other papers. Among these many duties, I shall have to select for attempting such as may promise the most successful and beneficial results, and of the most ready and certain attainment. The services and best efforts of any one individual, and even with the expected aid of a few capable and regular assistants, will be altogether inadequate even to touch upon the far greater part of the wide field open for operations. Therefore, for the purpose of directing to the best ends the partial effort which only can be made, I invite my friends especially, and any public-spirited farmers who will be pleased to forward these efforts, to inform me in which localities they are desired, and where they will be likely to be most successful. With like facilities afforded for access, or under like circumstances in general, I will deem it my duty to give my earliest or greatest share of attention to the particular counties or neighborhoods of which it is understood that the residents will most appreciate my offered service, and contribute their aid and service most freely to the special objects of the commission, and to the general objects and operation of the State Agricultural Society.

The publishers of newspapers in Virginia, and Presidents and Directors of railroads and steamboats, and proprietors of other public conveyances, can render important aid to the State Agricultural Society—the first by giving facilities of communication with the public, and the others by offering facilities for travel to the Commissioner, during his time of service, and for his official service only. I do not object to suggesting or asking these favors, thus generally and publicly, inasmuch as, if afforded, the benefits will not add a cent to my possible individual gain, or abate my more probable loss; but will wholly enure to the benefit of the State Agricultural Society, or to its working for the diffusion of agricultural instruction, and improvement of general agricultural interests. The necessary travelling and other incidental expenses of the commission are to be reimbursed; and of course any abate-

ment thereof will not be a saving to him, but to the State Society.

EDMUND RUFFIN,
Agricultural Commissioner.

Marlbourne, March 6, 1854.

Post Office, Old Church, Hanover, Va.

PLAN AND CONSTITUTION OF A WORKING AGRICULTURAL SOCIETY.

The following form of Constitution for a *working* County Agricultural Society, or a Farmers' Club, is here copied from the Farmers' Register to save some of the labor of preparation to persons who may be about to establish such associations. The portion in italic letters, or the *working clauses*, as they may well be termed, if made part of the standing rules of any Society or Club, will fulfil the condition required to admit such Association as auxiliary to the State Agricultural Society. A still better recommendation for this clause, is that it must necessarily render instructive and useful, for agricultural improvement, every result of its operation.

PROPOSED PLAN OF CONSTITUTION.

The Agricultural Society of ——— is instituted for the purpose of promoting the improvement of agriculture, and especially to seek that end by inducing the making and reporting of careful and accurate experiments, for ascertaining doubtful, disputed, or new and useful facts in scientific or practical agriculture.

1. The Society shall be composed of such persons as shall sign this Constitution, and pay such contributions as may be required by its provisions.

2. The Society shall have one general meeting in each year, which, until altered, shall be held at ———, on the ——— of ———, and such special meetings as may be called by proper authority.

3. The officers shall be a President, Secretary, and Treasurer, and four other members of the Executive Committee, the three former being members *ex officio* of that Committee; all to be elected by the annual general meeting, and to serve for one year, or until another election shall be made.

4. It shall be within the power and duty of the Executive Committee to order all things properly in furtherance of the objects of the Society, and within its means; *provided* that such action of the Executive Committee shall not extend to cases provided for by the vote and action of the Society, and shall never oppose any action or resolution of the Society.

5. The President, Secretary, and Treasurer shall have the powers and perform the several duties implied by the names of their offices, and both for the Society and for the Executive Committee, of which they are members *ex officio*.

6. No person shall be elected President of the Society two years in succession.

7. Each person on becoming a member shall pay to the Treasurer an admission fee of \$ ———, and at each annual meeting of the Society thereafter the further annual contribution of \$ ———.

8. *Besides any other discretionary or voluntary services, it shall be the special duty of each member of the Society annually to commence, and attempt to com-*

plete, at least two experiments on some one or more subjects of practical agriculture, on some doubtful or disputed questions, and designed to throw light thereon; which experiments shall be conducted carefully and accurately, to the best of the ability and the means of the experimenter, and the circumstances noted minutely, and, with the results, be reported in writing, as simply and concisely as may be, but minutely and fully, at the next annual meeting—and whether the result be deemed successful and valuable, or discouraging, or the whole experiment be deemed a failure. And in default of such reports either of progress or of completion, of two experiments by each member, at each annual meeting, the defaulter shall pay to the Treasurer \$ for each experiment wanting.

9. Of the annual income of the Society not less than one-half of the whole amount shall be appropriated as premiums offered for careful and well conducted experiments on subjects of practical agriculture.

10. The Executive Committee shall prepare a list of practical agricultural matters deemed questionable, and important to be investigated by the experiments of members of the Society, from which, or from other sources, each member may choose subjects for experiment. And the experiments of members shall be arranged and condensed by the Executive Committee, and the facts shown by the results published in the manner deemed most suitable.

11. The Society will coöperate with each and every other Society having similar objects and general action, for the purpose of better forwarding their common and important object of inducing accurate investigation, eliciting useful facts, and exchanging and diffusing the knowledge thus acquired.

EXTIRPATING WIRE GRASS.

Below is the statement of our friend, Mr. Staples of Henrico, who is induced by us to become a competitor for the Corbin Premium of fifty dollars for the extirpation of wire grass.

He publishes his plan now, that others may try the same thing, and verify it as far as it can be done in one season by actual trial.

How it may do with others we cannot say, but we know Mr. Staples, and if he says it has answered with him we are willing to swear to it.

F. G. RUFFIN, Esq.

Dear Sir,—Your note of the 8th instant, came to hand a few days ago. I had no idea of contending for the premiums you speak of for fear my mode of exterminating wire grass should be ridiculed, but such as it is I will state to you, as I believe I have already done. It is this: about the first of May the land should be well ploughed and one bushel and a half of buckwheat and one hundred pounds of guano, well raked (harrowed) in. As soon as the buckwheat is in full bloom, the crop should be ploughed in, and one bushel and a half of black-eyed peas, well put in, either by cultivators or rake; and when the pea vines are in full bloom—which I think will be about the middle of September—plough them in. Then put in your wheat crop; and I think with a little lime, say twenty-five bushels per acre, you may kill three birds with one stone, viz. secure a good crop of wheat, exterminate the wire grass, and, by clover-ing, get your land in an improving condition.

FRAS. STAPLES.

From the American Farmer.

ATKINS' SELF-RAKING REAPER.

A CHALLENGE.

We publish by request of Mr. Wright, the following article, though we must candidly say that we doubt the practicability of carrying into effect the plan suggested by him. Our experience has shown the difficulty of obtaining the services of committeemen for a single day on trials of machinery, and it would require a degree of public spirit rarely to be met with, for any number of gentlemen to devote as much time as Mr. W.'s project calls for, at such a season of the year—and no security can be offered, that their labors will not be in vain, and their decisions as unsatisfactory as those which have preceded them.

We have already, some months ago, through an able correspondent, presented to our readers a description and favorable notice of Atkins' Self-Raking Reaper, to which we refer all persons interested.

CHICAGO, February 7, 1854.

Dear Sir,—As a manufacturer, I desire to enter my protest against any more petty trials of reapers. They cost a great deal and amount to nothing. The decision at one trial is reversed the next week at another, perhaps with the same machines, and often the competitors can show their defeat was owing to some extraneous circumstance, as not having a suitable team, bad driving, or unfortunate management in some way.

A reaper trial is not like a horse-race, where the sole object is to beat, regardless of every thing except the coming out ahead; it is, or ought to be, to ascertain surely which is the best machine, and not so much to benefit the owner as the farmers, who wish to know what kind to buy.

How absurd is it for any set of men—I care not how great their experience and judgment—to take from three to a dozen reapers, perhaps all of acknowledged merit, and by the cutting of two acres each, as was done at the Wooster, Ohio, trial, where mine was defeated: or even by cutting five or six acres, as at the Richmond, Indiana, trial, where mine was victor, decide positively and absolutely that one reaper is better than all others.

Such a trial might show whether a reaper would work or not, but to judge between rival reapers, of which there are over twenty of established reputation, each having its points of excellence, a long and thorough trial must be requisite, to see how they work in different kinds of grain, and under varied circumstances, and how they wear. A trial, to be decisive,

should go through an entire harvest. One, too, that was thorough and reliable, would be equally available in one State as another. They are also expensive to all concerned. I would, therefore, propose a general trial on something like the following plan:

Let several State Agricultural Societies unite, each appropriating \$200 to \$500, and appointing one or two committeemen, in whose experience, judgment and fairness, entire confidence could be placed. Let the committee make their arrangements early as possible, adopt their rules, and appoint time and place of first meeting. They might begin South, and proceeding North, continue the trial for weeks if necessary, leaving out one machine after another as its inferiority became manifest.

The committee should have all their expenses paid, and perhaps compensation besides; and the cost of removing reapers from place to place might also be borne by the committee, in order to enable every builder to come into the trial; and for this reason I would not require any entrance fee, though some of the larger builders would doubtless be willing to contribute to the general fund. If five or more societies can be got to unite in such a trial, I will contribute \$200 to \$500, or as much as any other builder.

The surplus funds should be divided to the best machines, say half to the first, one-third to the second, and one-sixth to the third, to be paid in plate or money as might be desired by the winner.

To save time and expedite arrangements, I would suggest to parties interested to correspond with Col. B. P. Johnson, *Secretary of the New York State Agricultural Society, Albany, New York*. I have not communicated with him, but am quite sure his interest in agricultural matters will cause him to bear the labors with cheerfulness.

Yours respectfully,
J. S. WRIGHT.

From the Boston Cultivator.

TURKEYS.

Messrs. Editors.—Amongst the variety of poultry seen in market, turkeys form a conspicuous part. They are distinguished for the large size which they attain, and for their fine flesh. As fowl for the table, there is, perhaps, no superior, for their flesh cannot fail to suit the taste of the most fastidious; but to rear these birds successfully requires much skill and care. When first hatched, they are very tender, so that a little rain or cold will sometimes destroy them. They do not, at first, require

food, for nature has not sent them into the world with empty stomachs. Hence, it is highly injudicious to feed much at first. They are very fond of bonnyclabber or curd, and I think it the best food for them when young. I kept three hen-turkeys during the past season; they laid, on an average, about twenty eggs apiece, hatched out fifty-six, and reared up to maturity fifty-two turkeys. I kept them for several weeks on bonnyclabber, mixed with Indian meal. They were enclosed in a space of about twelve feet square, for about two weeks, and then they were allowed larger bounds. They are exceedingly fond of grass-hoppers and crickets, and hence, if they are abundant, turkeys require but little other food until near the time when they are grown for market. Indian meal mixed with boiled potatoes is very good for fattening them. Vermin are very destructive to turkeys, much more so than to chickens; hence, hens are not so well fitted to rear them as the parent bird, for they are always troubled more or less with lice, caused by sitting in the same place every night, while turkeys sit out in the open air and in different places. I have been in the habit of anointing their heads with a drop of oil when first hatched, in order to secure them from vermin, and they have never been troubled with lice when thus attended to.

There is another matter which I consider of great importance in rearing turkeys successfully; and that is, the changing of the breed annually, or in other words, the male and female birds should be of no relationship to one another. By the in and in breeding system, they diminish in size and are far more liable to disease, while on the contrary, there is an increase in size, when there is no relation to one another. They are very fast growers when healthy, much more so than the Shanghai race of fowls, which are distinguished for their great size; and the enormous prices charged for them!

EVERETT.

For the Southern Planter.

NELSON'S GUANO ATTACHMENT FOR SOWING GUANO IN THE DRILL WITH WHEAT.

Mr. Editor.—I am sorry that my experiments with the guano attachment are not as yet matured sufficiently to answer all the inquiries of your correspondent from Buckingham, but as far as I can, I will answer them with pleasure.

I used, last fall, Pennock's drill, with T. F. Nelson's guano attachment. I applied from fifty to one hundred pounds of guano to the acre, and I do not doubt that in some places it was put on at the rate of one hundred and fifty pounds to the acre, as my machine or the attachment was badly made. The wheat came up well and looks decidedly better than the wheat where no guano was applied. I think it looks best where the greatest amount of

guano was put. I have conversed with several of my neighbors who have used the attachment, and they agree with me in the opinion that the guano sowed directly upon the wheat by the attachment will not affect the germination and vegetation of the grain. When I harvest the wheat I will give you the result of my experiments. At present the prospect is very favorable.

Very sincerely your friend,

HUGH M. NELSON,
Near Millwood, Clarke County, Va.

PAYMENTS TO THE SOUTHERN PLANTER

To the 30th of January, 1854.

All persons who have made payments early enough to be entered, and whose names do not appear in the following receipt list, are requested to give immediate notice of the omission, in order that the correction may be made in the next issue:

Jos. C. Boxley to January 1855	\$1 00
Caleb Leigh to January 1855	1 00
Thomas H. Allmand to April 1854	1 00
Wm. M. Womack to January 1855	2 00
P. H. Jackson to January 1855	2 00
E. Edmunds to January 1855	1 00
T. R. Marshall to January 1855	3 00
Major E. J. Redd to January 1855	1 00
Joseph B. Traylor to January 1855	6 66
B. F. Traylor to January 1855	
Arthur Creek Farm to January 1855	
Isaac C. Crutchfield to January 1855	
Samuel P. Collier to January 1855	
P. St. Geo. Cocke to January 1855	
Andrew Maxwell to January 1855	
Richard D. Powell to January 1855	
S. M. Wilson to January 1856	
John A. Fleet to January 1855	
J. H. C. Jones to January 1855	3 00
William P. Tucker to January 1855	1 00
William A. Wilkins to January 1855	1 00
William Griffin to January 1855	1 00
Capt. William Watts to January 1855	1 00
George W. Tucker to January 1855	1 00
William H. Welborn to January 1855	1 00
James M. Chappell to January 1855	1 00
John S. Rogers to January 1855	1 00
Henry Gravett to January 1855	1 00
R. T. Hubbard to January 1855	2 00
R. G. Tunstall to January 1855	1 00
Nathaniel King to January 1855	1 00
Alfred Tuck to January 1855	1 00
Dr. Henry Curtis to January 1855	1 00
John Jacob to January 1855	1 00
John Parker to January 1854	1 00
Daniel Tompkins to January 1857	1 00
John R. Mann to January 1855	1 00
Alexander Kerr to January 1855	1 00
Thomas R. Gresham to January 1855	2 00
Corbin Watkins to January 1854	1 00
S. C. Sutton to January 1855	1 00
William H. Nicholson to January 1855	1 00
William Thomas, Jr. to January 1855	1 00
Richardson Henley to January 1855	5 00
L. T. Waller to January 1855	
B. F. Piggott to January 1855	
J. T. Marston to January 1855	
F. W. Hammond to January 1855	
J. P. Vaiden to January 1855	1 00
James Calhoun to January 1854	
William Mathews to January 1855	

James Venable to July 1854	\$1 00
Capt. James B. Carter to January 1855	1 00
Estate of P. T. Spratley (in full) to Jan. 1854	2 00
Capt. J. L. Davis to January 1855	1 00
Leroy G. Edwards to January 1854	5 00
William F. Wickham to January 1855	8 00
C. H. A. Clay to January 1855	1 00
John Tyler to January 1855	1 00
Isaac G. Cason to January 1855	1 50
William W. Eustace to January 1855	1 00
M. B. Holstead to January 1855	1 00
N. P. Howard to January 1855	1 00
L. H. B. Whitaker to January 1855	1 00
Jesse Whitehead to January 1855	1 00
Pattison Boxley to January 1855	1 00
Alexander Garrett to January 1855	1 00
Major Yancey to January 1854	1 00
Daniel Hatcher to January 1855	1 00
Henry A. Sydnor to January 1855	1 00
B. N. Robinson to January 1855	1 00
John C. Bell to June 1854	1 00
Capt. Thomas Nelson to January 1855	1 00
Ed. Cunningham to January 1855	1 00
Dr. R. W. Royster to January 1855	1 00
Joseph P. Terrell to January 1855	1 00
William R. Cock to January 1855	1 00
Francis Staples to January 1855	1 00
T. B. Wade to January 1855	1 00
H. T. Kidd to January 1855	1 00
Col. Cary C. Cocke to September 1854	1 00
Shelton V. Cross to January 1855	1 00
William A. Braxton to January 1854	3 00
D. H. Davidson to January 1854	4 00
John W. Backhouse to January 1855	1 00
Benjamin Hiner to January 1854	2 00
William E. Meade to March 1855	1 00
William Logan, Jr. to January 1855	1 00
Dr. J. N. Faulcon to September 1854	1 00
George W. Key to January 1855	1 00
Paschal Bracy to January 1855	1 00
Capt. P. H. Hurt to January 1855	10 00
R. H. Allen to January 1855	1 00
J. Y. Hardy to January 1855	2 00
W. W. Harris to January 1855	1 00
Estate of Ed. S. Brown (in full) to Jan. 1853	4 00
George C. Smith to January 1855	2 00
James M. Garnett to January 1855	1 00
J. E. Smith to July 1854	1 00
Dr. John R. Garnett to January 1855	1 00
Jesse Wherry to January 1855	1 00
Dr. T. J. Wooldridge to September 1854	1 00
Rev. George G. Exall to January 1855	1 00
Col. T. J. Boyd to January 1855	1 00
Thomas Lumpkin to January 1855	1 00
William L. Moon to January 1855	1 00
William W. Thompson to January 1855	1 00
Estate of John Woolfolk to January 1854	4 00
Richard Woolfolk to July 1854	1 00
Josiah Higgins to January 1855	1 00
Thomas E. Colman to January 1855	1 00
John E. Johnson to January 1855	1 00
D. J. Claiborne, Sr. to March 1856	3 00
John White to July 1854	1 00
William K. Perrin to January 1855	1 00
C. W. Montague to January 1855	1 00
Thomas Cooke to January 1855	1 00
A. H. Clarke to September 1854	1 00
T. T. Dillard to January 1855	1 00
William Mitchell to January 1855	1 00
James Via to January 1855	1 00
Richard B. Spratley to January 1855	2 00
E. F. Pinchback to January 1855	2 00
Elliott Wortham to January 1855	1 00

John Nicholls to January 1854	\$5 00	J. A. Watson to January 1855	\$1 00
J. C. Hayter to January 1855		B. F. Terry to January 1855	1 00
James J. Lowry to January 1855		A. D. Dickinson to January 1855	1 00
Russell B. Rodgers to January 1855	5 00	Capt. D. F. Womack to January 1855	4 00
Samuel W. Montgomery to January 1855		G. D. Saunders to September 1854	1 00
Samuel A. Preston to January 1855		J. E. Harper to January 1855	1 00
James C. Greenway to January 1855		Th. Goode to January 1855	1 00
T. B. Nicholls to January 1854	5 00	W. W. Hancock to January 1855	1 00
Samuel P. Watkins to January 1855	1 00	W. W. Watkins to January 1855	1 00
Dr. J. P. Hambleton to January 1854	1 00	C. E. Redd to January 1855	1 00
J. J. W. Powell to January 1855	1 00	Col. Jos. Dupuy to January 1855	1 00
J. L. Bridges to January 1855	1 00	S. B. Scott to January 1855	1 00
D. H. Pannill to January 1855	1 00	H. H. Marshall to January 1853	5 00
M. R. Kaufman to January 1855	1 00	Rev. S. J. Price to January 1855	2 00
John H. Lee to January 1855	1 00	Geo. H. Gilmer to January 1855	2 00
James C. Hobbs to January 1855	2 00	Jos. W. Harper to July 1854	1 00
Beverly Barksdale to January 1855	1 00	Benjamin M. Jones to January 1855	1 00
E. P. Burnett to January 1854	1 00	Capt. John B. Phillips to January 1855	1 00
Miss Nancy Perkins to January 1855	1 00	W. T. Walters to January 1855	1 00
H. P. Poindexter to July 1854	1 00	T. W. Lowry to January 1856	2 00
D. A. Saunders to January 1855	1 00	J. J. Walker to January 1855	1 00
Major James Hill to January 1855	1 00	J. H. C. Leach to January 1855	1 00
W. T. Sledge to January 1855	1 00	H. J. Venable to January 1855	1 00
William B. Newton to January 1855	1 00		
John Grasty to January 1855	2 00		
Caleb T. Chaplain to July 1853	3 00		
John H. James to April 1855	1 00		
Col. John R. Barnes to January 1855	1 00		
Elzy Burroughs to January 1855	1 00		
John Hart, Sr. to January 1855	1 00		
Dr. P. H. Anderson to January 1855	1 00		
Mrs. M. T. Mosely to January 1855	1 00		
S. Bassett French to January 1855	1 00		
Richard Malone to January 1855	1 00		
Joseph Phillips to January 1855	1 00		
James H. Bowyer to June 1854	1 00		
Dr. William B. Jennings to January 1855	1 00		
William B. Hall to January 1855	1 00		
Thomas Young to January 1855	1 00		
Samuel H. Ragland to January 1855	1 00		
R. Wilkins to January 1855	1 00		
R. C. Spencer to January 1855	1 00		
Giles N. Crowder to January 1855	1 00		
Dr. James Singleton, Jr. to January 1855	1 00		
W. F. Pogue to January 1855	1 00		
George M. Carter to January 1855	1 00		
N. Quesenberry to January 1855	1 00		
B. F. Hudgins to January 1855	1 00		
Capt. W. J. Barrow to January 1855	1 00		
William Hix to July 1855	5 00		
Col. William Byars to July 1856	5 00		
Thomas T. Withers to January 1855	1 00		
B. J. Barbour to January 1855	1 00		
S. B. Finley to July 1854	1 00		
W. E. Bradshaw to April 1854	1 00		
B. H. Brightwell to April 1855	1 00		
P. S. Smithson to May 1855	1 00		
Josiah B. Scott to September 1854	3 00		
Alexander Moseley to January 1854	1 00		
William H. Venable to January 1855	1 00		
H. B. Brightwell to April 1855	2 00		
M. B. Allen to January 1855	1 00		
J. M. C. Venable to January 1855	1 00		
Moses Treadway to January 1855	1 00		
Capt. T. L. Hines to January 1855	1 00		
G. W. Claibourne to April 1854	1 00		
J. F. Rice to January 1855	1 00		
Archer W. Womack to January 1855	1 00		
Watkins Dupuy to January 1855	1 00		
H. F. Morton to January 1855	1 00		
H. S. Guthrey to July 1854	8 00		
R. C. Anderson to October 1854	2 00		
Jos. T. Redd to January 1855	1 00		

VALUABLE ALBEMARLE FARM FOR SALE.—The subscriber offers for sale that valuable and well known farm, the D. S., situated on the waters of Ivy Creek, $3\frac{1}{2}$ miles from the University of Virginia, $4\frac{1}{2}$ from Charlottesville, and immediately on the Staunton and Charlottesville Turnpike, and Virginia Central Rail Road, in one of the most beautiful sections of the State, and in a neighborhood long proverbial for its highly cultivated society, its fertile lands, its pure and abundant water and general healthfulness; also possessing the greatest facilities to the best of markets. The D. S. contains 695 acres, about one hundred acres in timber, and the balance in a fine state of improvement. It has for many years been considered one of the most productive farms in the county, producing finely all the various crops of this section. There is an abundant supply of running water in every field, and large portions of the farm could be converted into watered meadow. The improvements are good and of every variety. Being anxious to sell, terms will be made very accommodating. Address

GEO. B. STEPHENS,

ap—tf Woodville Depot, Albemarle, Va.

SUTTON & BROTHER, Commission and Forwarding Merchants, north side Basin, between 11th and 12th streets, Richmond, Virginia, will give their personal attention to the sale of Flour, Tobacco, Wheat, Corn, and all kinds of Country Produce; also to the purchase and shipment of Guano, Plaster, Agricultural Implements, &c., and will attend promptly to the forwarding of all articles intrusted to their care.

REFERENCES.—Messrs. Kent, Paine & Kent, Richmond; Sterling Claiborne, Esq. Nelson; Daniel H. Hoge, Esq. Montgomery; George D. Davis, Esq. Lynchburg; Dr. Archibald Graham, Board of Public Works; Hon. R. M. T. Hunter, Virginia; Hon. Paulus Powell, Virginia; John I. Donaldson, Esq. Baltimore; Messrs. Conkling, Barnes & Shepherd, New York; Messrs. Blair & Merwin, New York.

N. B.—Liberal advances made on consignments.

FRANCIS V. SUTTON, Jr.

ap—2t* CORYDON H. SUTTON.

WILLIAM P. LADD,
APOTHECARY AND DRUGGIST,

No. 319, head of Broad Street, Shockoe Hill, Richmond, Virginia.

DEALER in English, Mediterranean, India and all Foreign and Domestic Drugs and Medicines; also, Paints, Oils, Varnish, Dye-Stuffs, Window Glass, Putty, &c. For sale on the most accommodating terms.

Orders from Country Merchants and Physicians thankfully received and promptly attended to.
ja 1851—tf

READ, CONSIDER AND ACT WISELY. IMPORTANT TO FARMERS!

What is that you have got there boy, and what doing?

Ah! Massa, dis de Wells' Seed Sower—de berry best ting in de world to sow de clober and de timoty seed, de plaster, de go-no, and de wheat. I sows 25 acres in one day Massa—try him.



It is only by the use of valuable improvements that we can reasonably expect to keep up with the age in which we live, and public opinion everywhere has placed M. D. Wells' Improved Patent Seed Sower in the first class of agricultural implements. The above drawing exhibits it in use, and any ordinary mind must at once be impressed with the certain conviction that it is an indispensable implement of husbandry, and that every good farmer should have it. By its use you save time, which is money and labor which costs money and experience in using it proves you will not be driven from the field unless by very rough weather, and the almost mathematical precision with which the seed is distributed, compared with hand sowing, renders it self evident in the opinion of the best farmers that a saving or gain of two dollars per acre is made in two crops of grass and the succeeding crop of wheat, one year's interest on an acre of land at \$33, and sowing three acres pays for a machine with lid at \$6.

The first premium was recommended for this machine at the late Virginia State Fair, and four of the committee (all having use for it) engaged one each; and we think if governed by your interest you will do likewise.

MOTT, LEWIS & WILLSON,

Sole agents for Richmond—Agricultural Implement Store, No. 36, Main Street.
fe—tf

GENERAL AGENCY

For the Sale and Purchase of Lands.

FRANK: G. RUFFIN, *Secretary of the Virginia State Agricultural Society*, and **N. AUGUST**, *Notary Public and Accountant*, offer their services to the public as **GENERAL AGENTS** for the sale and purchase of lands in Virginia, and in the Southern and Western States. Those wishing our services, having lands for sale, are requested to furnish us with a full description of such property, and the terms, &c., upon which they are willing to sell; and those wishing to purchase are requested to inform us of the locality in which they wish to purchase, the price they are willing to pay, &c. Our charges will be moderate.

Office at the office of the Virginia State Agricultural Society.
jan—tf

STEPHEN H. FISHER, MANUFACTURER OF BOOTS AND SHOES, No. 228, Broad Street, north side, between 3d and 4th streets, Richmond, Virginia, keeps constantly on hand a full assortment of ready made Boots and Shoes of his own MANUFACTURE, for Ladies' and Children's wear, which he will sell as low as can be purchased in this city.

Boots and Shoes for Gentlemen and Boys on hand, or made to order at short notice.

Servants' Shoes of all qualities always on hand.

☞ All work warranted. ☞

☞ Farmers are invited to give him a call.

oc—ly

ZIMMERMAN & CO'S CELEBRATED PATENT PREMIUM THRESHER, CLEANER AND BAGGER, which received the first premium at the Crystal Palace, New York, this making ten premiums in two seasons, in competition with the most celebrated Separators of the day; proving conclusively, that simplicity in construction, cheapness in price and durability in machine, is being fully appreciated, and the old complicated costly separators must yield their place to a superior machine. This Machine, for threshing, separating, cleaning twice, screening and bagging, (by one simple operation), all kinds of Grain—the greatest labor-saving machine extant; for simplicity, durability, cheapness and capacity, it has no rival in the world. It is capable of turning out, ready for the mill or for seed, from 300 to 500 bushels of wheat per day, with six or eight horses, and eight hands—or from 500 to 800 bushels with twelve horses and as many hands, doing the work cleaner, and breaking less grain, than any machine now in use. This machine received the first premiums at the Maryland State Fair, Baltimore, in 1852 and 1853; the Washington County Maryland Fair; Valley Agricultural Fair of Virginia, in 1852 and 1853; the Rappahannock Agricultural Society, at Port Royal, Virginia; Indiana State Fair, Indianapolis, 1853.

This machine is so simple in construction, that the one fan and shoe completely cleans and bags the grain, dispensing with all the complicated machinery (and consequent liability of derangement) in all other separators, thus making it more desirable to the farmer.

☞ **SHOP PRICES OF ZIMMERMAN & CO.'S THRESHER, CLEANER, BAGGER AND POWER**—Thresher, Cleaner and Bagger complete, 6 and 8 horses, \$175; Power for same, \$100—making \$275 for the whole complete. Thresher, Cleaner and Bagger, 36 inch Cylinder, \$200; Power for same, \$135, for 8, 10 and 12 horses. This machine is complete with Band, Wrenches, &c.

☞ **REFERENCES**.—Samuel Sands, Esq., Editor of the "American Farmer"; Col. Edward Lloyd, Easton, Md.; Capt. D. Cox, Northumberland county, Va.; Hill Carter, Esq., Richmond; Richard Willis, Esq., Richmond; Col. Charles Carroll, near Ellicott's Mills, Md.; F. Nelson, Esq., Richmond; Col. B. Davenport, Jefferson county, Va.; Dr. Harding, Northumberland county, Va.; Captain Harding, Northumberland county, Va.; Hugh Nelson, Esq., Clarke county, Va.; Charles Mason, Esq., King George county, Va.; S. W. Thomas, Esq., Clarke county, Va.; Dr. T. J. Marlow, Frederick city, Md.; David Boyd, Esq., Frederick city, Md.; Ezra Houck, Frederick city, Md.; Samuel Holt, Middletown Valley, Md.; John Clagett, Hagerstown, Md.

☞ The above machines are manufactured in Charlestown, Jefferson county, Virginia. All orders addressed to us will be attended to with promptness, and all Threshers sent out warranted to come up to the standard.

ZIMMERMAN & CO.

ap—3t*

FRUIT TREES, &c.

I HAVE for sale, a choice lot of **PLUM AND PEAR TREES**, of the following named varieties: *Plums*—Coe's Gold Drop, Monroe, Royale Hâtive, Yellow Egg, or Magnum Bonum, McLaughlin, Bleecker's Gage, Smith's Orleans, Coe's Late Red, Columbia, Long Scarlet, Prince's Imperial.

Standard Pears, on Pear Stock—Van Mons, Beurre Deil, Osband's Summer, Stevens' Genesee, White Doyenne, or Virgalieu, Canton, Onondaga Tyson.

Dwarfs, on Quince Stocks—Soldat Saboreur, Doyenne de Pais, Louise Bonne de Jersey, Beurre Goubalt, Van Mons Leon le Clere, Beurre Capiamount, Glout Morceau, Stevens' Genesee, Madeleine, Dearborn's Seedling, Bartlett, White Doyenne, Tyson.

☞ Also, Grape Vines, Asparagus Roots, Rhubarb, Strawberry and Raspberry Plants of different varieties, Roses, Magnolias, Evergreens, Green-house Plants, &c. &c.

JAMES GUEST,

Hollywood Nursery,
Square above the new Western Square,
Richmond.

feb—tf

A MOST DESIRABLE FARM FOR SALE.

253 ACRES of Land, 16 miles from Richmond, 70 acres being "James river low grounds" and the residue the best quality of up-land on clay bottom, separated from the 70 acres by the "James River and Kanawha Canal," which passes through the farm, and over which there is a bridge, to be supported in perpetuity at the expense of the Canal Company. The buildings on the farm are comfortable and beautifully located, commanding the most picturesque view of James river. This farm offers peculiar advantages from the facility of communication with Richmond—one of the best markets in the country—the proverbial fertility of "James river lands," and the fact that such a farm is rarely offered for sale. It will be sold unusually low, if application be made soon, and on accommodating terms, with the growing crops, cattle, horses, mules and farming implements, including a new "Hussey's Reaper," &c. &c. &c.

There are 135 bushels of wheat sown, and about 60 acres ploughed for corn.

Apply, pre-paid, to

GODDIN & APPERSON, *Richmond, Va.*

Or to P. D. BERNARD, *Publisher So'n Planter.*

Baltimore Sun, Philadelphia Ledger, and National Intelligencer insert three times each, and send accounts to this office for settlement.

feb—3t

STOVES AND FANCY IRON CASTINGS,

Exhibited at the Virginia State Agricultural Fair,

By Messrs. Bowers, Snyder & Carter.

THESE Gentlemen erected Works, about two years since, by which they have been extensively supplying the State with articles for which we have heretofore depended entirely upon northern foundries.

Their Cooking Stoves have given entire satisfaction to all Virginia housewives who have used them. On the door of one of these we notice a representation of a sheaf of wheat, in which the heads and even the distinct grains stand out in beautiful relief.

They exhibit a specimen of parlor stove especially worthy of notice. Its style and finish are highly ornamental. Its chief merit consists of a door designed to increase the draught of the fire, which is made to revolve vertically upon a pivot.

These manufacturers, in a modest, unpretending way, are rendering good service to the State, by developing her resources in this branch of domestic industry.

E. B. SPENCE,
H. M. SMITH,
JAMES PAE,

Committee on Household Implements.

I have sold principally, for the past two years, the stoves manufactured by Messrs. Bowers, Snyder & Carter, at the Richmond Stove Works, and have found them to give my patrons entire satisfaction, both in their operation and durability.

CHARLES D. YALE,

130, Main Street, Richmond, Virginia, Depot for Bolton & Yale's "Caloric Air Furnace."

jan 1854—1y

HAY PRESS.—I am making a superior and highly approved Hay Press, with which three men can compress from three to five tons of hay per day. It attracted much attention at the late fair, and was awarded the highest premium.

H. BALDWIN,

148 Main Street, Richmond.

mar—3t

EAGLE FOUNDRY.

THE subscriber having removed to the large Foundry, just erected by him and fitted out with machinery of the latest and most approved style, is, in addition to the manufacture of Tobacco Flattening Mills, prepared to receive orders for Stationary Steam Engines, Saw and Grist Mills, Agricultural Machines, Tobacco Presses of every description, and all kinds of Iron and Brass Castings. He pledges himself to execute faithfully, and with dispatch, all work entrusted to him, and respectfully solicits a call from his friends and the public generally.

The highest cash prices paid for old cast iron, brass and copper. PHILIP RAHM,
ja—1y Cary, between Pearl and 15th sts.

HALL & SPEER, PLOUGH MANUFACTURERS, No. 166 Penn Street, Pittsburgh, Patentees of the celebrated First Premium Iron Centre and Hillside Revolving Beam Ploughs, also manufacture Patent Lever, Centre Lever, Improved Peacock, Wrought Mouldboard, Creole, Valley, and every other description of Ploughs, Plough Castings, Cultivators, &c.

Morton & Booker, Agents, Richmond, Va.

Watkins & Morton, Agents, Petersburg, Va.

Agencies will be established in all the principal towns throughout Virginia, so that points can be supplied regularly and conveniently.

nov—6t*

H. & S.

SINTON & SONS' NURSERY, NEAR RICHMOND, VIRGINIA.

AS the season for planting has arrived, the subscribers would respectfully call the attention of their friends and the public generally, to their large and extensive collection of FRUIT TREES, embracing, perhaps, a selection that has not been surpassed, for the climate of Virginia, and nearly all propagated from fruit-bearing trees in their own orchard.

Catalogues, with directions for planting, may be had at William Palmer's Seed and Plough Store; at Peyton Johnston & Brother's Apothecary Store; at C. J. Sinton & Co's. Hardware Store, and at Logan Waller's Commission House, where any orders left will be punctually attended to, and letters addressed to the subscribers, Richmond, will receive prompt attention.

nov—tf

JOSEPH SINTON & SONS.

AGENCY FOR THE PURCHASE AND SALE OF IMPROVED STOCK.

STOCK Cattle of all the different breeds, Sheep, Swine, Poultry, &c. will be purchased to order, and carefully shipped to any part of the United States, for which a reasonable commission will be charged. Apply to

AARON CLEMENT, *Philadelphia.*

Refer to Gen. W. H. Richardson, Richmond, Va.

N. B.—All letters, post-paid, will be promptly attended to. ap—tf

GENERAL AGENCY.

THE Subscriber offers his services, as Agent, to buy and sell, land; furnish men homes; selling, renting, and buying houses in Baltimore; furnishing improved Stock and Poultry of every description; also, to buy Guano, sell grain, and other articles of farm production. And begs leave to refer those desirous of employing an Agent, to the President and other officers of the Maryland Agricultural Society, and to the Secretary of the Virginia State Agricultural Society.

MARTIN GOLDSBOROUGH,

ja—1y

No. 38, Holliday street, Baltimore, Md.

PREMIUM THRESHERS.

FARMERS WISHING TO OBTAIN these superior machines, will secure themselves against disappointment and confer a great favor upon the subscriber by giving their orders as early as convenient.

My threshers, so long regarded as superior by all who have used them, have when brought in competition with all the best machines of Northern as well as Southern Manufacturers at the late *Virginia State Fair*, received so marked a distinction, by the award of the first premium, that I need only refer to the official report of the committee in the Jan. number of the Southern Planter to satisfy all who wish to purchase.

The *Pitts Patent Thresher*, with separator and cleaner attached, to clean wheat or other grain at one operation, is placed prominently in advance of all machines aiming to accomplish this object by having the first premium offered for the best machine for this purpose awarded to it. Although the one exhibited by me was a very rough one, and gotten on the ground in a great hurry and exhibited without even a decent coat of paint upon it—and under many other disadvantages. The machine manufactured for the exhibition could not be gotten here in time.

Persons wishing to procure this superior and justly celebrated machine, may obtain full description of its peculiar advantages and adaptedness for large estates or for a travelling machine to thresh for toll, by addressing the subscriber, who is sole agent here.

I have a few of the above machines ready for work, but on account of the heavy expense of getting them up, and the length of time necessarily consumed in doing so, it is very important to get all orders as early as possible.

Price of horse power, with thresher, separator, and cleaner, in one frame and mounted upon wheels for moving from field to field or from farm to farm, is \$400. This machine can be seen at my Factory, and any inquiries by letter will be answered promptly.

Premium Straw Cutters.

In calling attention to my large stock of implements, comprising Threshers of all sizes, Horse Powers from 4 to 10 horses, Wheat Fans, Cornshellers, Seed Drills, *Horse rakes*, Cradles & Scythes, Hay Presses, Hussey, and McCormick Reapers, &c.

I wish to ask especial attention to my Patent Straw Cutter for hand purposes. This machine received the first premium at the Virginia State Fair, and also at the Rappahannock River Society's Fair, and at the Norfolk Fair, and has the unqualified recommendation of many thousands now using them. Price \$10, warranted to give satisfaction on trial. I am also manufacturing Smith's *patent double plough*, known as the Michigan Double Plough. This plough received the first premium offered for a three horse plough, which was divided between the subscriber and Mr. French, who exhibited the same plough, as will be seen by official report in Planter as above.

I have Hussey's Reapers ready for the next harvest; please call and examine.

H. M. SMITH.

feb—4t

BOOKS, PIANOS, MUSIC, &c.

JAMES WOODHOUSE, Wholesale and Retail Dealer in BOOKS, PIANO FORTES, STATIONERY, MUSIC, &c. 139 Main St., Richmond, Virginia. Constantly on hand, a full supply of standard AGRICULTURAL WORKS.

oc—1f

A. MORRIS, 97 Main Street, is constantly supplied with all New and STANDARD AGRICULTURAL WORKS. The subscriber respectfully invites the attention of the public to his extensive assortment of Books on Agriculture, among which may be found—

The Chemical Field Lectures for Agriculturists, by Dr. J. A. Stockhardt; translated from the German: edited with notes by James E. Tesehemæher.

The Field Book of Manures, or the American Muck Book; treating of the nature, properties, &c. of all the principal manures in common use, by D. J. Brown.

The American Farm Book, or Compend of American Agriculture, being a practical treatise on soils, manures, draining, &c. and every staple product of the United States, with the best methods of planting, cultivating and preparation for market, by R. L. Allen

Elements of Agricultural Chemistry and Geology, by James F. W. Johnston, M. A.

The Monthly Journal of Agriculture, containing the best current productions in promotion of agricultural improvement, including the choicest prize essays issued in Europe and America, with original contributions from eminent farmers and statesmen, 3 vols. 8vo., John S. Skinner, Editor.

The Principles of Agriculture, by Albert D. Thaër.

The Farmer's and Planter's Encyclopædia of Rural Affairs, embracing all the most recent discoveries in agricultural chemistry, adapted to the comprehension of unscientific readers, by C. W. Johnson, Esq.

European Agriculture and Rural Economy, from personal observations, by Henry Colman.

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I AM prepared to receive orders for Albemarle Pigs—a breed made by crossing several varieties, which will grow to good size, and fatten easily at any age. This breed received some of the highest prizes at the Virginia State Fair. I have, also, four boar pigs, from my large Delaware Sow, (estimated to weigh, nett, near one thousand pounds,) which will be ready for delivery in a few weeks. Address, (post paid,) JOHN R. WOODS,

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THE undersigned is prepared to execute the analyses of Soils, Guano, Marls, Plaster, &c. &c. at the Laboratory of the Virginia Military Institute. Packages may be forwarded through Webb, Bacon & Co. Richmond, or Echols & Pryor, Lynchburg. Persons desiring further information will please address

WILLIAM GILHAM,

Prof. Chemistry and Agriculture, V. M. I.

Feb. 1, 1852.

Lexington, Va.

KOSSUTH.



THIS fine bred young TROTTING STALLION having commenced his season at the stable of the subscriber, on the Mechanicsville Turnpike, one mile from the city of Richmond, will, on the first of April, be at the farm of Mr. Thomas J. Dean, four miles above Goochland Court House, where he will also make a regular stand of two days in each week throughout the season. In passing Mr. Sam'l Duval's, (Powell's old tavern,) he will make a short stay, giving those in that neighborhood an opportunity of securing his services. The season to close on the 1st of July.

TERMS.—\$20 the season, if paid previous to the 1st of July, or \$25 after that time; and \$30 to insure—insurance forfeited by parting with a mare, and all mares considered by the season, unless expressly understood to the contrary. Groom's fee \$1.

KOSSUTH was foaled in Columbia county, State of New York, on the 9th of July, 1847; is a beautiful rich dark brown, five feet two and a half inches high, of great muscular power and symmetry of form, docile disposition, and can trot his mile inside of three minutes, and has been pronounced by trainers the most promising young horse they had ever seen. His colts, dropped last spring, are equal to any in the State, and as a proof of it, \$200 a piece has been refused for several of them when six months old.

PEDIGREE.—Was sired by the renowned trotting horse New York Black Hawk, out of the trotting mare Lady of the Lake. The sire of Black Hawk was the celebrated stallion Andrew Jackson, (the sire also of Kemble Jackson, Henry Clay, Miller's Damsel, and a large number of other fast ones,) the fastest trotting horse of his day—having beaten Daniel D. Tompkins, Fire King, Lady Warrington, Modesty and others. He was sired by Young Bashaw, who was by imported Grand Bashaw, and he by Wildair, and Wildair by Cade, who was by the Godolphin Arabian. The dam of Andrew Jackson was Whynot, and she by imported Messenger.

Black Hawk's dam was the distinguished trotting mare Sally Miller, who has trotted her mile in two minutes and thirty seconds, and was not excelled by any horse of her time. She was got by Tippeco Saib, and he by imported Messenger, her dam by Gunpowder. Black Hawk's time with heavy weight is the best on record up to the time of his death, and established his claim to be the best trotting stallion in America.

PERFORMANCES OF BLACK HAWK.—November 17th, 1847, beat Jenny Lind over the Union Course, match \$500, mile heats—Black Hawk to a 250 lb. wagon, Jenny Lind to a skeleton wagon, weighing about 75 lbs.—winning the first and third heats in 2:40—2:43; Jenny Lind winning the second in 2:38.

April 25th, 1848, beat Lady Sutton over the Union Course, in a match for \$700, with an inside stake of \$500, mile heats, best three in five, 250 lb. wagons—time, 2:43—2:43—2:42—2:45½.

May 15th, 1848, beat Americus over the Union Course in a match for \$2000, three mile heats, to 250 lb. wagons—time, 8:31—8:36; for further performances, see Turf Register for 1847 and 1848, where will also be seen the challenge of his owner to trot him against any horse in the world, for any amount, from \$500 to \$5000, which challenge never was accepted. Subsequently, \$13,000 was refused for him. Honest John, half brother to Kossuth, has also distinguished himself on the turf, as a horse of uncommon speed and power, with heavy weight.

In 1850, he started ten times for purses and stakes, and won eight.

In 1851, he started eight times, winning five.

June 22d, 1852, over the Union Course, he beat Black Harry, in a match for \$1200, two mile heats, to wagons—time, 5:27—5:28.

October 18th, 1852, for a purse and stake of \$550, he beat True John, two mile heats, to 250 lb. wagons—time, 2:28½—5:37½.

June 1st, 1853, Kemble Jackson, (half brother to Black Hawk,) trotted over the Union Course against five of the best horses in this country, for a stake and purse of \$4000, three mile heats, to 250 lb. wagons, winning in two straight

heats without making a break, in the unparalleled time of 8:03—8:04½, and for whom his owner refused \$16,000.

September 21st, 1853, Miller's Damsel, (half sister to Black Hawk,) in a match for \$500, over the Centreville Course, beat Jenny Lind, mile heats, best three in five, to wagons—wagon and driver weighing 470 lbs., winning the first, third and fourth heats—time, 2:49—2:46—2:47.

October 19th, 1853, in a match for \$500, over the Centreville Course, mile heats, best three in five, to 250 lb. wagons, beat Lady Haynes in three straight heats—time, 2:43—2:47—2:49.

April 21st, 1853, Black Douglass, a grandson of Andrew Jackson, made his first appearance on the turf over the Hunting Park Course, in a match with Flora Temple, for \$500, mile heats, best three in five, in harness, and won in three straight heats—time, 2:35½—2:30½—2:35.

Cassius M. Clay, to whom was awarded the first premium, last October, at the Springfield, Massachusetts, National Horse Exhibition, is also a grandson of Andrew Jackson.

Lady of the Lake, the dam of Kossuth, without training has trotted her mile in 2:49, and as a roadster, was not surpassed for game and endurance. She was by Sherman Morgan; her dam a thoroughbred Mambrino mare.

Thus it will be seen that Kossuth is not a chance horse, but belongs to a trotting family, and the very best in America, and traces his blood through a long line of choice ancestors—all celebrated for speed and great endurance—and goes back to some of the purest Arabian and English horses; and I assert, without fear of contradiction, that he is the best bred trotting stallion that has ever crossed the Potomac.

Persons wishing to breed fast and serviceable road stock, are invited to call and examine the horse, and they can also have an opportunity to see him move, and I think I can satisfy them that he is not only a descendant of trotters, but is himself a TROTTING HORSE.

Persons sending mares from a distance can have them well taken care of at my stable at forty cents per day, and those sent to Mr. Dean's farm, at a reasonable price.

RICHMOND, April, 1854.—tf

H. J. SMITH

AT THE SOUTHERN AGRICULTURAL IMPLEMENT MANUFACTORY AND SEED STORE, can be found a large collection of the strongest and most useful articles for the Southern farmer, as will be seen by reference to the report of the committee on that branch at the Virginia State Agricultural Fair, held here in November last, that the premium for the largest, strongest and most useful collection of Implements was awarded to Mott, Lewis & Co. We are daily adding to our assortment from our large Machine Depot, Ploughs of all kinds from the most approved patterns now in use. Among them may be found the justly celebrated Wiley or Mott Plough, with double points; Minor & Horten of Nos. 18, 18½ up to No. 22; Hitchcock, Nos. 21 and 21½; improved Davis', both wrought and cast share; improved McCormick, improved Livingston; from the original patterns, and many other kinds too numerous to mention. Also, castings for all ploughs, by the piece or ton; Corn Cultivators of different kinds; Tobacco Cultivators; Harrows, from one-horse up to four-horse; Corn Shellers, from the single spout up to the Virginia Sheller and the Premium Munma Sheller; Corn and Cob Crushers; Straw Cutters of all patterns from \$7 up to \$55; Grain Cradles of the most approved patterns; Grass Snathes; Churns, Ox Yokes, Store, Trucks, Hay and Straw Forks, from 62½ cents up to \$1 50; Spades, Shovels, and many other articles too numerous to mention. Also, Landreth's best Garden and Field Seeds. All of which will be sold on as reasonable terms as they can be had from any Northern city. Call and examine for yourselves.

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ap—tf **Ruther Glen P. O., Caroline Co., Va.**

PREMIUM SWINE.—Suffolks from Morton's Piggery, have taken the highest premiums, as may be seen by the published Transactions of the Massachusetts State and Norfolk County Agricultural Societies. The stock now for sale is large and well assorted, embracing the purest and best blood of this unequalled breed. Pigs, properly paired for breeding, \$30 a pair. For prices of Boars and Sows, see catalogue, which will be sent by mail on application. Animals purchased forwarded by express or vessel from Boston, with pedigree. Orders must be accompanied by a remittance.

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Boston, April 3, 1854—1t*

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Reference can be made to the Editor of the Planter, who will testify to the fact that persons will pay near double at the North for sheep inferior to these.

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WORMS! WORMS!

A great many learned treatises have been written, explaining the origin of, and classifying the worms generated in the human system. Scarcely any topic of medical science has elicited more acute observation and profound research; and yet physicians are very much divided in opinion on the subject. It must be admitted, however, that, after all, a mode of expelling these worms, and purifying the body from their presence, is of more value than the wisest disquisitions as to the origin. The expelling agent has at length been found—Dr. M'Lane's Vermifuge is the much sought after specific, and has already superseded all other worm medicines, its efficacy being universally acknowledged by medical practitioners.

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The above are bred in separate apartments, and can be obtained at moderate prices by addressing

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Best quality moleskin,	-	-	-	\$3 50
Second quality moleskin,	-	-	-	3 00
Best quality silk,	-	-	-	2 50
Second quality silk,	-	-	-	2 00

Fine Calfskin Sewed Boots only three dollars and fifty cents.

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